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VoIP: The State Of The Industry

No News Is Good News For The New Kid On The Telecommunications Block

by Christian Perry

· · ·

BEFORE ILL-FATED TECHNOLOGIES reach their final destination of obscurity, they often gradually fade from headlines as their presence likewise fades from business infrastructures. However, the lack of buzz surrounding some technologies doesn't always portend their demise, as Voice over IP is showing in the business space.
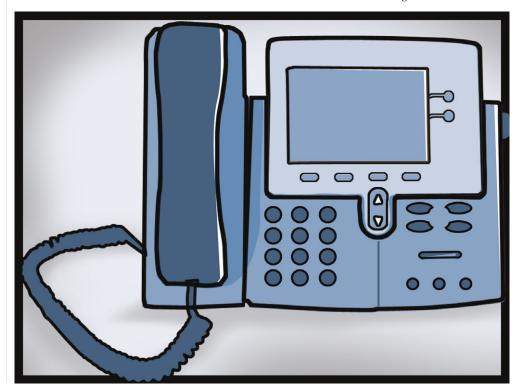
"We believe VoIP has become the standard, even for SMBs, and that it's now so prevalent, we're not hearing as much about it. It's old news," says Timothy McCreery, president and CEO of WildPackets (www .wildpackets.com). "The overall cost and ROI are very attractive for SMBs, who often have a much tighter budget for telecommunications than larger enterprises. Most small businesses, like our own, have already deployed VoIP solutions and have moved on."

According to a 2008 SMB VoIP market research study from Savatar, almost all business VoIP customers with 100 or more employees would recommend VoIP to their business peers. Of that same group, 57% said their VoIP service exceeds the reliability of their prior service, while a whopping 77% indicated the cost of their VoIP service is better than what they paid for their previous service.

Under The Radar

SMEs can be wise to take a wait-and-see approach on new technologies because they don't always have supporting resources to pick up the slack should a new technology fail to meet expectations. Although businesses

Green Movement: All Talk & No Action?

SMEs Say They're Onboard, But Few Are Taking The Initiative

by Robyn Weisman

· · ·

ACCORDING TO THE BPM (Business Performance Management Forum), data centers across the United States are using the equivalent of what five power plants produce in a year. Meanwhile, as energy expenditures skyrocket, discarded IT equipment has been taking up a higher percentage of the world's debris at a faster rate than anything else.

Therefore, it isn't surprising to hear the clarion call of the green IT movement. Whether you're discussing ways to minimize your power consumption, eco-friendly ways of disposing of your used equipment, or ways to incorporate virtualization into your IT architecture, going green appears to be a priority of most IT professionals today. In fact, BPM's recently released whitepaper "Lean & Green—Reducing IT Energy Drain for Business Gain" reveals that more than 85% of all respondents agree that it is.

But green IT thus far has been more about preaching than practicing. "IT organizations are failing to properly control and reduce energy consumption through specific plans and activities even in the face of a double whammy of . . . additional energy demands to process more information, as well as the rocketing cost of energy," says Derek Kober, director of the BPM Forum.

The Disconnect

According to Kober, the study shows a disconnect between IT professionals and

> **Green IT thus far has been more about preaching than practicing.**

In This ISSUE

COVER FOCUS
Enterprise Messaging & Communications Update

We get you up-to-date with the latest in VoIP, email, unified communications, and text messaging with an in-depth look at the demands these technologies place on your data center.

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With the use of thin provisioning, it is possible to come closer to one of the holy grails of storage: allocating storage capacity when it is required on a purely as-needed basis.

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Hacking has shifted from sport to a for-profit end game riddled with criminal intent, but Web application firewall technologies are gaining traction in corporate data centers.

Major Drivers Behind Automation | 29

Data center automation software is receiving increasing attention from IT managers due to a variety of business and technology trends that have converged to make the job of infrastructure operations and management ever more challenging.

Product Releases | 17

■ **Absolute Software** announced Computrace Mobile, a data protection solution for handheld devices. ■ **Aten** announced the latest products in its enterprise KVM line, including the CL5716 16-Port PS/2-USB LCD KVMP Switch. ■ **AXS-One** announced its Dynamic Data Migrator, which helps migrate from Lotus Notes/Domino to Microsoft Exchange or vice versa. ■ **B&L** released Archived Data Manager, a Web-based application that consolidates backup catalogs. ■ **Columbitech** released its environmentally friendly mobile VPN for wireless networks. ■ **Eaton** released its new Powerware BladeUPS Maintenance Bypass Cabinet. ■ **Lieberman Software** released Enterprise Random Password Manager for discovering and updating privileged password account use. ■ **Neverfail** announced ClusterProtector, the latest edition of the Neverfail Continuous Availability Suite. ■ **Uptime Software's** up.time 5 offers enterprise-wide cross-domain, cross-environment system monitoring and capacity management.

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PHYSICAL INFRASTRUCTURE   JUNE 20, 2008

RapidNetRail

HellermannTyton & Damac Products Work Together To Provide One Innovative Solution

THE RAPIDNETRAIL system from Hellermann-Tyton and Damac Products helps maximize your data center space. The system supports Hellermann Tyton's RapidNet pre-terminated network cabling solution and Damac Products' Extreme and Co-Location Series cabinets.

This solution uses zero rack mount space by incorporating RapidNet within the 19-inch cabinet rails. RapidNetRail features a patented quick-mount rail design that allows for cassette adds, moves, and changes without interrupting rack-mounted equipment in a fully populated cabinet. It's designed to accommodate both overhead and raised floor cable routing while still maintaining a 24-inch wide footprint.

These rails meet the EIA 310-D industry standards and still maintain a 19-inch rackable surface. Ports can be put where you need them to align connectivity with your servers. Up to 24 RapidNet looms can be installed in either copper and/or fiber combinations, with a maximum of 144 ports for copper and a maximum of 288 ports for fiber.

HellermannTyton's RapidNet pre-terminated plug-and-play system does not require onsite termination or certification testing; it's been verified to reduce installation time by 85% over traditional methods. RapidNet is available in copper and fiber modular configurations and offers performance and reliability for critical applications.

You can choose from two Damac Products storage cabinets: the Co-Location cabinet is a secure, multiple compartment cabinet designed for a co-location environment, and the Extreme Series supports the high equipment density demands you find in data centers.

RapidNetRail

A system combining pre-terminated network cabling and a choice of cabinets

Damac Products: (888) 949-2289
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www.damac.com   www.hellermann.tyton.com

DAMAC PRODUCTS, INC.   **HellermannTyton**

CLIENTS   JUNE 20, 2008

Secure Mobile Computing

Dolphin 7600 Now Includes GSM Wireless Technology & Windows Mobile 6

MOBILITY IS A MUST for business professionals. To access important data at any time is invaluable, which is why Honeywell Imaging and Mobility equipped its Dolphin 7600 Mobile Computer with GSM wireless technology and Microsoft's Windows Mobile 6.

With GSM wireless technology, the Dolphin 7600 allows users to stay connected no matter where they are. Wireless Full Area Networking, combined with Bluetooth, 802.11, and GSM/GPRS EDGE, enables real-time data exchange and voice communications onsite or offsite.

The addition of Windows Mobile 6 enables users to be productive while they're traveling, with connections to email, calendars, and contacts. Windows Mobile 6 also has the ability to read and create Word and Excel files, as well as view PowerPoint presentations. The familiarity of a Windows operating system makes mobile computing simple and intuitive.

The Dolphin 7600 uses a 2.8-inch VGA color display for both viewing and touchscreen use. Its backlit number and letter keypad is strategically arranged to enable one-handed operation. The Dolphin 7600's small, ergonomic design and durable construction is useful in both field and onsite operation.

In addition to its new features, the Dolphin 7600 Mobile Computer is integrated with Adaptus Imaging Technology 5.0, which allows users to capture a wide array of data such as barcodes, digital images, and signatures. This feature is especially useful for retail, parcel and postal delivery, field services, and task management applications.

Honeywell Dolphin 7600 Mobile Computer

Handheld mobile computer equipped with GSM wireless technology and Windows Mobile 6

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SECURITY   JUNE 20, 2008

Email Archiving With Data Integrity

ArcMail's Defender U3160 Improves Productivity & Reduces Strain On IT Resources

EMAIL HAS BECOME the *de facto* means of communicating in an office setting. Archiving all that data is important, and managing it effectively can help a company improve productivity and reduce the strain on IT resources. It's crucial to ensure data integrity so archived data can't be altered.

ArcMail Technology addresses these needs with Defender U3160, a standalone appliance with 16TB of storage that provides comprehensive archive and data management. The appliance operates seamlessly in the background. Both administrators and end users can use a simple, Web-based interface to search for and retrieve archived email data. ArcMail Defender U3160 can be used either in the office or remotely.

Admins have a variety of abilities with ArcMail Defender U3160, including being able to monitor system settings and produce reports to ensure that emails are being successfully archived. Once data has been archived, it's protected by data integrity and encryption technology to ensure that data that has been backed up and subsequently restored can't be altered.

ArcMail Defender U3160 is easy to install, use, and manage and captures all inbound, outbound, and internal email with the mail server's journaling function. Operating on the Linux platform, the appliance is compatible with Microsoft Exchange, Lotus Notes, Groupwise, and other mail servers with journaling functionality.

ArcMail Technology
ArcMail Defender U3160

$34,999

Provides email archiving with data integrity and encryption

(866) 417-6495

www.arcmailtech.com

ARCMAIL TECHNOLOGY

Network Monitoring For SMEs & Beyond

Ipswitch's WhatsUp Gold Version 12 Gets Bigger & Better

BUSINESSES GROW CONSTANTLY, and networks must adjust to changing demands. Yet, as important as it is for a network to be able to scale upward, every company has to start somewhere. Having network management tools that can grow with a business from a small enterprise to a large one is valuable.

WhatsUp Gold from Ipswitch has been addressing this issue for over 15 years. The most recent version, WhatsUp Gold 12, has added several new features, including Split Second Graphs, which allow administrators to more quickly identify any problems and take proactive steps toward resolving issues—in seconds,

not minutes. Additionally, real-time data can be added to full reports to give administrators a more complete picture of network health, which is continuously updated as real-time information flows in.

Through the various workspace views, administrators can see current device usage data via the InstantInfo pop-ups feature just by hovering the cursor over device or network interface links. Also new are the Web Task Manager and Web Performance Monitor, Web-based tools that extend the functionality of Windows tools to every user.

WhatsUp Gold is designed to provide easy-to-use management and monitoring

interfaces, transparent upgrade paths, and low total cost of ownership. With a bevy of plug-ins, WhatsUp Gold can be expanded to suit the needs of any size enterprise.

Ipswitch WhatsUp Gold v12

Standard: $1,995
Premium: $2,595
Distributed: $3,095
MSP: $2,790

Network monitoring software for any size enterprise

(800) 793-4825

www.whatsupgold.com

Meet The Newest RAID

NetCom USA Introduces RAID Storage Systems For Critical Data

HE NR6 FAMILY of RAID storage systems is the newest member of NetCom USA's storage solution offerings. Available in capacities of 2, 4, and 8TB with data transfer speeds up to 400MBps, NR6 storage systems are a fast, reliable solution for storage of mission-critical data.

NetCom USA's NR6 family of storage products is ideal for increased network storage capacity, medical image storage,

HD video/audio productions, and nearline backup.

Businesses generate more data than ever before and require fast, continuous access to their information. The NR6 family of

storage systems provides protected storage of important information including emails, accounting reports, marketing assets, engineering projects, and creative productions—quickly and safely—while remaining cost-effective.

NetCom USA provides proven RAID technologies for data protection that secures information and ultra-fast access to data for increased productivity.

Features include:
• A factory-matched HBA (host bus adaptor) for PCI, PCI Express, or PCI-X
• Compact 2U rackmount design
• Dual hot-swappable power supplies
• Removable and lockable drive trays for added security

• Easy installation (often completed in just minutes)

The NR6 systems provide safe, economical storage expansion for IT networks and support Windows, Linux, and Macintosh operating systems. RAID levels supported include 0, 5, 6, and 10 for maximum performance and data protection.

NetCom NR6 RAID Storage Systems

Starts at $4,649

Available in capacities of 2, 4, and 8TBs with transfer speeds up to 400MBps

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Web Security For Every Size Of Enterprise

Aladdin's eSafe v6.2 Proxy Expands Security Options For The eSafe Family

INTERNET-RELATED SECURITY THREATS are nothing new, but they're as dangerous as ever. Checking for Internet threats in real time is a powerful way to combat malware of every kind. Aladdin Knowledge Systems' family of eSafe products is designed to address security issues on

multiple levels. The latest addition to the arsenal is eSafe v6.2 Proxy, a Web-security application for both in-line and proxy implementation.

By virtue of its implementation options, eSafe supports virtually any network environment. Protection occurs in real time and is designed to help companies protect data, improve productivity, and enable compliance. eSafe can be deployed as a native proxy that integrates Microsoft ISA or as an in-line bridge/router, forwarding proxy, or ICAP proxy.

eSafe v6.2 Proxy is designed to inspect all HTTP, HTTPS, and FTP over HTTP traffic thoroughly to protect the network from viruses, spyware, spam, Trojans, and more. Aladdin designed eSafe v6.2 Proxy to provide complete protection, high performance, and intelligent and thorough inspection.

The eSafe family is a flexible security package that can be installed in enterprise environments in a variety of different modes. It's designed to work transparently, checking Web activity at the gateway to avoid impacting network performance.

Aladdin Knowledge Systems eSafe v6.2 Proxy

Starts at $3,500

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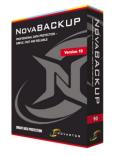
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Customize Backup & Recovery

NovaStor's NovaBACKUP 10 Provides Local & Online Data Protection

DATA PROTECTION IS NOT ONLY CRITICAL for computer users, it's essential for the defense of PCs and servers. To secure user data, an SME must set a backup system in place.

NovaStor's NovaBACKUP 10, a comprehensive data protection and disaster recovery solution, supports both local backup and online storage. In the event of an onsite disaster, NovaBACKUP 10 takes a snapshot of the entire

system, which enables fast restoration of a local or network source. Online recovery can copy or mirror information to FTP, Internet storage accounts, or corporate servers.

In terms of flexibility, NovaBACKUP 10 enables users to restore all files or select specific files for backup. Users can also customize

backup times and, with the flexible scheduler, choose the right routine for automatic backups so they can track when their data is processed. Other convenient features include Smart Select backup for photos, music, documents, or emails and plug-and-play support for devices such as DVDs, CDs, Blu-ray discs, USB devices, and tapes.

NovaBACKUP 10 comes in three versions: Professional, Server, and Business Essentials. NovaBACKUP 10 Professional offers basic backup and recovery for single workstations running Win2000/XP/Vista and features 2GB of free online storage for one year. NovaBACKUP 10 Server is designed for Windows 2000/2003 Server and includes 5GB of free online storage. NovaBACKUP 10 Business Essentials offers 10GB free online storage for a year along with priority support. This version is suitable for SMEs running a single SQL and/or Microsoft Exchange Server.

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Data protection and disaster recovery software that users can customize

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MarketPlace ▲▼ NEWS

Yahoo! Ends Talks With Microsoft, Makes Deal With Google

TALKS BETWEEN YAHOO! and Microsoft have reached an end, with Microsoft saying it is no longer interested in acquiring the company. Yahoo! was resistant from the start, protesting that Microsoft was only interested in the search branch of Yahoo!'s offerings; Microsoft had been courting Yahoo! for acquisition in hopes of strengthening its own Web presence and better competing with Web giant Google. A short time after its talks with Microsoft ended, Yahoo! announced that it has penned an advertising deal with Google. Per the agreement, Yahoo! will begin running advertisements from Google alongside search results. Yahoo! expects the nonexclusive deal to bring in $250 million to $450 million in operating cash flow during the first year.

Verizon Wireless To Buy Alltel

VERIZON WIRELESS HAS ANNOUNCED its intent to purchase rival Alltel Wireless for an estimated $28.1 billion, encompassing $22.2 billion in debt and about $5.9 billion cash. The purchase will place Verizon in the No. 1 spot in terms of wireless subscribers, with about 80 million. Second-place AT&T has about 71 million subscribers. Alltel service covers 34 states, primarily in the Southeast, Southwest, and Midwest. Verizon Chairman and CEO Ivan Seidenberg says the combination of the two companies "is a perfect fit." Verizon expects the deal to close before the end of this year, pending regulatory approval.

McAfee Lists Most Dangerous Web Domains

HONG KONG IS the most dangerous place to search and surf the Web, according to a new report from security technology company McAfee. More than 19% of all Web sites that end with the .hk domain pose a security risk such as adware, spyware, viruses, spam, excessive pop-ups, or browser exploits, McAfee says. The People's Republic of China (.cn domain) ranked second-most dangerous, followed by Philippines (.ph), Romania (.ro), and Russia (.ru). McAfee's report shows Finland (.fi) as the safest country, followed by Japan (.jp) and Norway (.no). Overall, McAfee says, the chance of downloading unwanted software while surfing the Web increased 41.5% compared to last year.

EU Commissioner Snubs Microsoft Office

AT A CONFERENCE in Brussels, Neelie Kroes, competition commissioner for the European Union, encouraged governments and businesses to use open-source software instead of closed technology, an indirect snub to Microsoft. Kroes did not specifically name the software giant, but she did make reference to the only firm in EU antitrust enforcement history that has been fined for not complying with commission orders, which is Microsoft. Kroes cited security concerns for companies and governments that use only one dominant software supplier. Kroes and the European Commission have imposed hefty fines on Microsoft for abusing its market dominance and are currently investigating more complaints.

Intel/AMD Trial Date Delayed . . .

THE TRIAL DATE for Advanced Micro Devices' lawsuit against its main competitor Intel has been pushed back to February 2010. The antitrust suit, which has been ongoing for five years, revolves around AMD accusing Intel of manipulating 38 companies in North America, Europe, and Asia by promising illegal subsidies if those firms would use Intel's products. AMD claims that in some cases Intel even threatened retribution if the companies used or sold AMD's products instead. AMD also says Intel coerced main customers, including Sony, Gateway, and Dell, to make exclusive deals with it in exchange for cash, special pricing, or marketing subsidies.

. . . & FTC Announces Intent To Investigate Intel

THE FEDERAL TRADE COMMISSION has served Intel with a subpoena as part of its ongoing informal inquiry into the company. The subpoena comes after similar investigations by other agencies, including those in Korea, Japan, and New York, as well as the European Commission. The Korea Fair Trade Commission recently fined Intel about $25 million for abusing its dominant position. According to the Commission, Intel offered South Korean computer makers rebates, harming rival AMD. Intel issued a response to the FTC subpoena, saying, "The evidence that this industry is fiercely competitive and working is compelling."

Chip Sales Forecast Lowered, But Positives Seen

DESPITE A RECENT optimistic forecast change from Gartner, the SIA (Semiconductor Industry Association) trade group lowered its forecast by 3.4% for global chip sales. Citing concerns over consumer spending habits as prices for energy and food rise, the SIA reduced its original forecast of 7.7%, made in November, to 4.3%, with expected revenue of $266.6 billion. But, the SIA says, demand for consumer electronics has remained strong even in the face of the slowing U.S. economy. Those strong sales bode well for the worldwide semiconductor market. George Scalise, SIA president, says that sales of personal computers, the largest market for semiconductors, are on pace to grow 10% this year, and cell phone shipments are expected to be up 12%. The SIA predicts semiconductor sales will grow to $324.1 billion by 2011, with a compound annual growth rate of 6.1%.

Red Hat Settles Lawsuit

IN 2006, Firestar Software filed a lawsuit against Red Hat, claiming that Red Hat's Hibernate product infringed on the patent Firestar holds for a technique to interface an object-oriented software application with a relational database in order to open up access to it. Firestar assigned its patent to DataTern, which is funded by Amphion Innovations. The companies agreed to settle the patent infringement case with Red Hat before it went to court in the Eastern District of Texas. Meanwhile, Red Hat is still dealing with another patent infringement lawsuit that IP Innovation filed against it last October.

Congressmen PCs Possibly Hacked

TWO U.S. CONGRESSMEN, Rep. Frank Wolf (R-Va.) and Rep. Christopher Smith (R-N.J.), said their office computers were the target of a possible hacking from the People's Republic of China. Wolf said his office computers were hacked in August 2006, and Smith said computers he used in coordination with the House Committee on Foreign Affairs were attacked two years ago. The congressmen say the information compromised could include that on Chinese political dissidents and human rights activists. In response, China's Foreign Ministry spokesperson Qin Gang said in a news conference the claims are unfounded and added, "I'd like to urge some people in the U.S. not to be paranoid."

Spear Phishing Hooks 15,000 Since February 2007

RESEARCHERS AT VERISIGN have reported that, since February 2007, more than 15,000 victims have fallen prey to spear-phishing attacks. Two of the most successful attacks involved emails that appeared to be subpoenas for court charges and emails that claimed to be from the IRS or the Better Business Bureau. Verisign believes that two crime groups are responsible for 95% of the attacks it tracked for its study and does not expect the attacks to let up.

Yahoo! Shareholders Seek Severance Repeal

YAHOO! SHAREHOLDERS have filed suit in hopes of invalidating the company's controversial severance package, in which all full-time employees would receive an accelerated vesting of stock options in the event of a change of control (which may soon be the case if Yahoo! investor Carl Icahn succeeds in supplanting the current board of directors) and if an employee leaves Yahoo! because of changes in his responsibilities or title in the two years after said change of control. Consultants estimate that, if the severance package went into effect, it could cost Yahoo! $2.1 billion in severance costs.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 14 major companies in the technology market.

Company	Symbol	Year Ago	June 6 $	June 13 $	% change from previous week
Computer Associates	CA	$25.74	$24.94	$24.12	▼ 3.29%
Cisco Systems	CSCO	$26.49	$26.54	$26.37	▼ 0.64%
Dell	DELL	$27.26	$23.74	$24.42	▲ 2.86%
Electronic Data Systems	EDS	$27.79	$24.45	$24.42	▼ 0.12%
Google	GOOG	$504.70	$567	$571.51	▲ 0.8%
HP	HPQ	$45.46	$47.63	$47.45	▼ 0.38%
IBM	IBM	$103.08	$124.94	$126.15	▲ 0.97%
Intel	INTC	$22.67	$22.90	$22.66	▼ 1.05%
McAfee	MFE	$35.00	$36.70	$36.18	▼ 1.42%
Microsoft	MSFT	$30.39	$27.49	$29.07	▲ 5.75%
Oracle	ORCL	$19.30	$22.46	$22.63	▲ 0.76%
Red Hat Software	RHT	$23.26	$22.76	$22.25	▼ 2.24%
Sun Microsystems	JAVA	$4.99	$12.31	$11.72	▼ 4.79%
Symantec	SYMC	$20.01	$20.21	$20.21	Unchgd.

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

Managing Email Doesn't Have To Be Painful

Jatheon's Plug n Comply Helps Digital Insurance Simplify Compliance & Improve Email Management

by Drew Robb

• • •

ENTERPRISES TEND TO HAVE a love-hate relationship with email: They love the ease of communication, the automation of messaging tasks, and the ability to find old messages in moments, but they hate the volume of traffic; the fact that once it's down in writing, there is no taking it back; and, of course, the spam.

At Digital Insurance (www.digitalinsurance.com), the list of "hates" included lost messages, email backup hassles, and compliance headaches.

"Users lost emails on a daily basis, and help desk staff would spend 20 minutes or more to find and redeliver a single message," says Rick DeLuco, vice president of network operations at Digital Insurance. "Moreover, the company had no solution for easily backing up the emails sitting on its Exchange Server. With its new Plug n Comply solution, Digital Insurance meets both of these challenges and more."

Battling Email Challenges

Based in Atlanta, Digital Insurance delivers innovative health and benefits solutions designed for small businesses nationwide. It holds claim to representing the largest market share of small group business, working via brokers, agents, and financial services companies. Through Digital Insurance's INcompass suite of services, clients gain access to price advantages, a wide range of products, and the quality of service typically provided by large employers.

The company is a Microsoft shop with 29 servers in-house at its data center in Atlanta. These run Windows Server 2003, Microsoft Dynamics CRM software, and Microsoft Exchange 2003 for email. More than 120 users at its headquarters use Windows XP desktops running Microsoft Office 2003 and Microsoft Outlook for email. In addition, the company provides hosted email services for another 27 brokers. Almost 600 mailboxes reside on the company's Exchange Server, which sends more than 4,300 outbound and receives about 16,000 inbound messages daily.

Email challenges drove the company to search for a different approach. In addition to lost emails, it wasn't able to back up the vast number of messages resident in its Exchange store. As a result, some end users opted to store their emails locally so they could find them easily, but this led to further problems.

"Outlook .PST files were becoming corrupt, and backup of the .PST was very complicated," says DeLuco. "We also faced frustration from our users."

Journaling Cuts Clutter

Evaluation of products on the market led Digital Insurance to select Plug n Comply from Jatheon (www.jatheon.com). This tool is designed to eliminate complexity from legislative compliance to email storage, as well as electronic discovery requirements. The Plug n Comply archiving appliance provides a single point of access for efficient management and e-discovery of electronic records such as email and instant messages, including all related attachments.

"A critical factor in selecting the Plug n Comply appliance was end-user accessibility to the email archive, which helps lighten the help desk workload by letting end users recover their own lost emails," says DeLuco. "With the Jatheon solution journaling all company email and providing direct access to view and recover archived emails, users no longer perpetually store each and every email they receive in Outlook."

Journaling is a widely used technology designed to track changes in a log or other repository. Microsoft Exchange's journaling feature, for instance, forwards a copy of every email and attachment sent or received in a separate Exchange mailbox called the journal mailbox. This process is automatic and does not allow end users to tamper with the mail. The Jatheon appliance is connected to the client LAN, and this journaling mailbox is forwarded to the appliance's IP address. Plug n Comply then captures all the mail coming from this mailbox, applies the policies set

previously via its rules engine, indexes the messages, and archives the data. When this process is complete, the data is available for e-discovery and retrieval from the archive. According to DeLuco, the process of receiving and archiving the mail into the appliance is completed in a matter of seconds.

He reports that implementation was relatively painless. Jatheon tech support personnel applied most of the configuration

JATHEON plug n comply™

work remotely. They also walked Digital Insurance IT staff through the changes required on the Exchange Server.

"Jatheon's journaling functionality gives us a solid way to back up all our email, and its user-friendly interface gives our staff a way to easily monitor and retrieve historical mail," says DeLuco. "The real bonus, though, was the return on investment we felt immediately in administrative time. We've reclaimed about eight hours per month that used to be spent restoring lost emails."

In the past, a user who had lost an email would either call the help desk or submit a trouble ticket. This resulted in a call from support to that user to gain more details about the message: whom it was sent to, what email address it was sent from, and the subject. The help desk would then have to go to the old email appliance, run a search for the mail, find it, and deliver the mail a second time. On average, this whole process took about 20 minutes.

"Now, with the new Jatheon unit, all the user has to do is launch the Web or an Outlook plug-in and find the message," says DeLuco. "I really like the added comfort that all the mail is journaled to another source."

He regards this journaling function as a live backup of email without the use of traditional backup software.

"Backing up an Exchange Server and the information store in the traditional manner is not easy," says DeLuco. "Furthermore, restoring email and drilling down right to a

specific user message can be a nightmare for an administrator."

Email Under Control

Though he stops short of saying that the Jatheon box completely replaces regular backups of an Exchange Server, DeLuco is very appreciative of the fact that it can quickly restore an email without the administrator having to go through the usual gauntlet.

A side benefit from the implementation was a slowing of the growth of the company's Outlook and Exchange Server information stores. Previously, these information stores grew rapidly as users never deleted their mail. Putting restrictions on mailbox size was no answer, as that would have resulted in too much data loss and would have violated existing regulations. Today, journaling a copy of every message means that even if the user deleted the message from Outlook, the message is still on the Jatheon unit.

"With that comfort, the users are willing to purge the local Outlook," says DeLuco. "I am very happy with the Plug n Comply unit."

Going forward, the appliance will also be put to use archiving the company's Microsoft LCS (Live Communicator Server) instant messages.

"We have started to use LCS, and although we have not implemented this feature of the Jatheon box yet, it is on the roadmap to complete," says DeLuco. P

Industrial PoE Splitter

Advantech's EKI-2701PSI Provides Power To Difficult Situations

PoE (POWER OVER ETHERNET; also known as IEEE 802.3af) has proven itself in commercial and enterprise applications over the past several years. Using the unused wires in a 10/100BaseT cable, or by overlaying power on the data connections, PoE supplies 15.4W of power at 48VDC.

PoE is useful for powering network devices and equipment where it is inconvenient, expensive, or infeasible to supply

power separately. Connected between a standard Ethernet device and a PoE-powered connection, the Advantech EKI-2701PSI operates as a splitter, separating the PoE connection into a standard RJ45 Ethernet port and a removable screw terminal block capable of supplying nearly 13W at 24VDC.

Packaged in a thin DIN-rail mount chassis, the Advantech EKI-2701PSI is ideal where panel space is limited. It supports both standard 10/100BaseT and Gigabit 1000BaseT connections. It is also ruggedized for demanding industrial applications, with 4,000 VDC Ethernet ESD protection, power line surge (EFT) protection of 3,000 VDC, power isolation, and output power short circuit protection. For maximum uptime in unattended and remote locations, the EKI-2701PSI features an extended operating temperature range of -40 to 75° C.

The EKI-2701PSI splitter is an ideal means to gain the benefits of PoE with standard Ethernet devices in harsh industrial environments. For applications with two or more devices requiring a PoE power source, the EKI-2525P 5-port industrial Ethernet switch is a great match.

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WHEN TRAVELING PROFESSIONALS are out on the road, it's important to not only have access to important files, but to critical applications, as well. With Ceedo Enterprise, road warriors can have access to both files and applications while leaving their laptops at home. Ceedo Enterprise is an application virtualization tool that can store entire work environments on a USB hard drive or flash drive for light travel.

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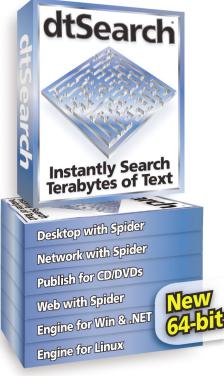
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Geist Manufacturing's Product Definition Form lets you customize product configurations and other options.

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Geist offers more than 1,000 model numbers made up of numerous product configurations and options. The Product Wizard at www.geistmfg.com can help identify the model that meets your spec. However, if a standard unit does not fit your application, don't settle.

Geist specializes in 15- to 120-amp PDUs, including single-phase, three-phase, IEC, and NEMA configurations. Your plug type choices include straight-blade, twist-lock, California style, or a pin-and-sleeve connector. You may also design your device to incorporate environmental, current, circuit and outlet level monitoring with local and/or remote display options. From multiple circuits and cord length to receptacle type and quantity, Geist puts your needs first.

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Quality assured. Geist uses a one-piece flow and in-process quality inspection to guarantee that every unit is examined for functionality and visual defects prior to packaging. Whether building a standard or custom product, this superior level of quality and reliability comes with every unit we make.

Geist operates a state-of-the-art testing lab, supervised by an in-house conformance engineer. By having this facility within Geist, we are able to quickly ensure regulatory compliance for all of our products, including customized ones.

Continuous improvement. In the third quarter of 2008, Geist will launch its metal works division. This new operation includes fabricating and powder coating equipment, enabling Geist to streamline chassis production as an internal function. The new metal works capabilities will further enhance Geist's rapid production response by minimizing restrictions due to suppliers' schedules.

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Wireless Presentations

ATEN's KE8220 Eliminates Cables, Upgrades Existing Projectors & Takes Your Meetings To The Next Level

CABLE-SWAPPING AND UPLOADING presentation data located on remote computers are serious drags in any professional meeting. With the KE8220 Virtual VNC Console, ATEN revolutionizes the meeting room with a tool that not only allows multiple local presenters to wirelessly transmit their presentation data from their notebooks to a projector or display, but enables remote users to push their data in real time via LAN, wired or wireless, to the ATEN KE8220.

This wireless presentation system from ATEN's ALTUSEN product line upgrades existing projectors and generates a cable-free conference environment for multiple presentations. The KE8220 also allows remote access of PowerPoint presentations, images, and other applications for real-time display on a projector, monitor, or other display device with standard VGA connectors. With the Wireless-G USB Adapter, the KE8220 transmits data over a secure high-speed 802.11b/g wireless connection at speeds of up to 54Mbps with 64-, 128-, and 256-bit WEP encryption.

Users can download AltusenVNC software from the KE8220's embedded Web server, allowing anyone in the meeting to switch focus between computers seamlessly with a mouse-click.

This plug-and-play device is compatible with Windows 2000/XP/2003/Vista. The KE8220 system features:

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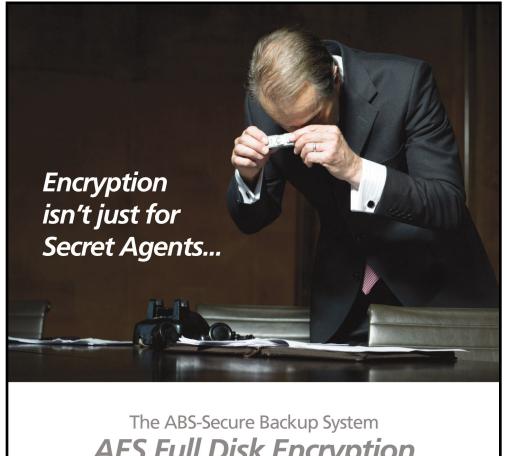
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Core-To-Edge Detection

Endace's NinjaProbe Adds Snort IDS Support & Data Mining Capabilities

MONITORING THE security of a network requires network administrators to make sense of a constant flow of information from a variety of fronts. Malicious threats and anomalies of all kinds must be recognized and dealt with handily, and administrators must rely on their equipment to help them keep the network safe. All of this puts more pressure on NIDS (network intrusion detection systems) to do their job well.

Endace has improved on its NIDS appliance, NinjaProbe, with the addition of 10G Snort IDS, Applied Watch Command Center Agent, and data mining capabilities. NinjaProbe is powered by Endace's DAG (Data Acquisition and Generation) technology. The new features are open-source and facilitate high-speed packet capture, intrusion detection, and analysis. They are designed to be easily deployable, powerful, and secure.

Endace's acquisition of Applied Watch allows NinjaProbe to integrate well with Snort IDS' management tools. NinjaProbe captures all incoming traffic to disk, from the edge of the network to the core, so that when a rule is triggered, administrators can address the problem and mine data concerning the event. And because the platform can operate on segments up to 10Gbps with continuous indexed rotary storage, analysts can collect and study data both before and after an alert.

The appliance's features can be managed remotely, including for Snort rule definition, download, and alerting, as well as data mining and platform configuration. Other features include traffic filtering and Netflow record generation, which facilitate data capture, performance management, traffic monitoring, and electronic surveillance to meet the full range of requirements.

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Backup, Recovery & Disaster Protection

Sonasoft's SonaSafe Suite Beefs Up The Defense

PROTECTING DATA IS ONE of the most important things a company can do. Sonasoft's newest version of its SonaSafe Suite for Microsoft Exchange, SQL, and Windows Servers improves upon its ability to facilitate data backup and recovery.

SonaSafe Suite is designed for high availability by continuously updating data that was retrieved from the primary system to the redundant, standby servers. The redundant servers themselves are designed to immediately take over for the primary system in the event of a disaster.

SonaSafe Suite supports SQL 7.0, 2000, and 2005; Exchange 2000, 2003, and 2007; and Windows NT/2000/2003/XP. Backup and recovery options are also available via a bootable CD and can be performed on systems such as VMware and Microsoft Virtual Server. The suite is controlled through a Web-based interface.

New features of the suite include dynamic mailbox backup, which makes larger amounts of mailbox storage possible on an Exchange server. One complete backup is made, so only incremental backups need to be performed in the future, thus eliminating costs. Data retrieval is possible with a few mouse clicks.

Other new features include customizable ports and enhanced replication and recovery capabilities. Customers can now define and open ports for backup and restore functions, which is more secure than doing so on more commonly used ports. File level backup and recovery options are also increased.

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Alleviate Endpoint Virtualization Stress

Neocleus' Trusted Edge Provides Simple, Secure Endpoint Solution

AS PROFESSIONALS BECOME more mobile, there is an increased need to keep these employees securely in touch with company resources. But maintaining a virtual connection that is both secure and reliable can be difficult—especially because organizations cannot control the security of an endpoint operated by a customer or employee.

For this reason, Neocleus has launched Trusted Edge, which is designed to provide organizations with a program that connects customers and employees to corporate resources from anywhere in the world, regardless of the state of security. Trusted Edge will address issues that arise when managing and safely deploying applications, data, and services.

Trusted Edge implements a new Type 1, bare-metal hypervisor and a separate virtual trusted environment outside of Windows provided by new security plan and IT management framework. When putting Trusted Edge into operation, desktops will not need to be rebuilt, decreasing end-user downtime and costs. Trusted Edge can run other Windows-based applications upon customer demand and supports RDP, Citrix ICA, and Web interfaces. Authentication and configuration controls offer an easily managed virtual endpoint environment, creating a win-win situation for both IT personnel and users.

Trusted Edge not only provides customers and employees with the flexibility of accessing company resources from anywhere, it also has continuously operating real-time remote confirmation of virtualized environment reliability.

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NX-9000 Sets The Standard For Scalability

Industry's First Gigabit WAN Acceleration Appliance

SILVER PEAK SYSTEMS' NX-9000 is the newest member of the company's NX family of appliances. The NX-9000 is the industry's first Gigabit WAN acceleration product, raising the bar for WAN performance and scale.

The NX-9000 supports up to 4Gbps of bidirectional LAN-side traffic and 1Gbps of bidirectional WAN-side traffic, with 8TB of local data store available for WAN deduplication. The newest Silver Peak appliance delivers up to 10 times the real-time throughput of competitive offerings.

The NX-9000 also includes two 10Gbps interfaces and four 1Gbps interfaces with EtherChannel bonding for physical connectivity between Silver Peak appliances and network elements, which is required for deployment in data center environments. As more hosts turn to multi-Gbps interfaces, the NX-9000 has the capacity required to support the corresponding growth in data volumes.

The NX-9000 is ideal for high-volume data environments and supports more than 256,000 simultaneous TCP flows. It optimizes all enterprise applications, including TCP traffic, real-time UDP traffic, latency sensitive traffic, and applications with dynamic data formats. Plus, NX appliances ensure that data is always secure, at rest and across the WAN.

The NX-9000 utilizes the following advanced optimization technologies to improve WAN bandwidth efficiency and accelerate application performance:

- Network Memory: Works on latency sensitive traffic and both TCP and non-TCP applications.
- Network Acceleration: Employs techniques that minimize latency caused by TCP and other chatty protocols.
- Network Integrity: Silver Peak is the only WAN optimization vendor to address lost and out-of-order packets in real time using adaptive FEC (Forward Error Correction) and POC (Packet Order Correction).

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WITH CERTEON'S ACELERA Virtual Appliance software, you can apply the advantages of virtualization to application acceleration without a reduction in application response time. The aCelera Virtual Appliance software delivers up to a 95% reduction in application response time for applications being accessed across the WAN. The software runs on standard x86 hardware in one or more virtual machines, so companies can mix and match application acceleration solutions for virtualized and nonvirtualized environments.

aCelera Virtual Appliances accelerate all network traffic and are optimized to accelerate remote access to specific applications, including Microsoft Office, Microsoft Office SharePoint Server, EMC Documentum eRoom, and UGS Solid Edge. The Certeon aCelera software provides centralized provisioning and is integrated with VMware Virtual Center to enable IT managers to allocate and manage app performance resources wherever needed. This flexibility helps avoid the need for specialized devices at each end of a WAN connection. By adding more virtual machines, IT staff can increase the acceleration capacity as much as needed for specific times or days when application traffic is heavy.

IT managers can reduce their overheard costs by downloading and deploying the aCelera Virtual Appliance software for remote users to help reduce the amount of dedicated hardware in data centers and remote offices.

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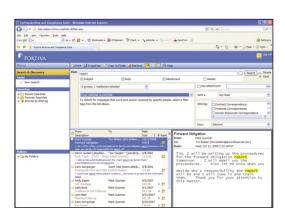Allows you to accelerate application access without dedicated hardware

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On-Demand Email Archiving

Fortiva Offers An All-Inclusive Email Archiving Solution

The Fortiva Archiving Suite allows you to easily search all archived messages, including attachments, right from Outlook or any web browser

THE MAJORITY OF a company's business-critical data is stored in email; data that can impact revenue, business decisions, corporate reputations, and end-user productivity. With all this at stake, businesses need to ensure that email is securely stored and easily accessed.

Fortiva Archiving Suite gives businesses a secure way to store and access an unlimited amount of historical email in real time without overloading the Exchange server. Fortiva also offers full preparation for legal discovery and provides easy compliance with regulatory rules. The policy-driven system also ensures consistent retention.

Fortiva Archiving Suite automatically captures and indexes all internal and external communications for redundant storage offsite. Users can easily access data within Outlook or a Web browser with guaranteed search performance, resulting in less need to store historical data within the mail server. Fortiva also guarantees data privacy through its DoubleBlind Encryption technology.

As a SaaS solution, Fortiva can be up and running in days, with no up-front capital costs and minimal planning. Fortiva takes care of everything from storage to security, so the archive can be easily managed by existing messaging staff.

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Email: The Biggest Issues

From Storage To User Education, Email Challenges Are At The Forefront Of Many IT Strategies

by Elizabeth Millard

• • •

TRY TO KICK someone off email for a few hours to do an upgrade, and you'll find out quickly how reliant employees have become on digital communication.

Even people within a company will often shoot messages through the system rather than stroll down the hall, and for the most part, all of this is a good thing. After all, email can be saved on servers, creating a communication trail that can assist with customer service and increase productivity.

But the tactic also creates a number of issues for every IT department, particularly for small to mid-sized enterprises, which have to deal with daily fire-fighting for problems that crop up with printers, network connections, and a host of other challenges. In order to deal with email most effectively, the best solution is a one-two punch: knowing the biggest issues and understanding what's already in place for dealing with them.

Top Concerns

When it comes to email, making sure that messages are delivered quickly isn't usually a problem, given network speed, but there are many top issues that dominate IT conversations.

Compliance. The past decade has seen a wealth of regulations geared toward public companies, but even private SMEs need to be aware of the legal ramifications of discarding email. A company may not be publicly traded, but if customers are public companies, then the SME could be subject to federal regulations for emails that are swapped between the two firms.

A good habit, some experts have noted, is for all companies to create an email storage and management strategy that includes compliance. This means an SME has to consider long-term storage, security, data accessibility, and platform flexibility. Also worth noting is that compliance isn't just about federal rules but also about internal policies. Use of inappropriate language through email could lead to harassment suits, and some companies have been sued because managers forwarded sexually suggestive "jokes" from outside sources. When it comes to proper compliance, it's up to IT to be the watchdog.

Archiving. Storage is always an issue within an SME, but with email, the issue can get tricky because users expect to be able to call up past messages quickly, and there are so many messages that are saved unnecessarily. Also, IT departments can find themselves backing up the same data over and over, says Mike Koclanes, chief strategy officer and senior VP of sales and marketing at archiving firm Plasmon (www.plasmon.com).

"About 70 to 80% of data that's being backed up on servers is unchanging content, including email," he notes. "By implementing a storage solution that has high accessibility and automated functionality, you can save money and time."

Archiving issues that crop up frequently are separating long-term storage from short-term backup and implementing deduplication so the same messages—such as an all-company email—are only saved in one version, not 500.

Security. Every email management appliance and application includes security protections such as antivirus and antispam tools. But a top concern isn't just what's coming in but also how emails are handled by employees, notes Chris Bradley, vice president of marketing and business development at MessageGate (www.messagegate.com).

"We're finding that companies have more risk exposure than they realize, with sensitive information going in or out that can violate corporate governance mandates," he says. Putting policies into place is helpful, but what's most effective is enforcement, since nonenforced policies tend to be ignored by employees. IT and other departments need to decide on what actions would be appropriate to take if an employee violates policies and follow through on those repercussions.

Vendor Know-How

Fortunately, email management is a competitive space, which means vendors are jostling with each other for IT budget money, and that leads to fresh innovation at a nice pace.

Also a boon is that these vendors have realized they won't be the only ones in an IT environment and so have developed products that play well together.

"It's not uncommon for a customer to have several appliances that protect email, Web services, and other areas of a network," says Stephen Pao, vice president of product management at Barracuda Networks (888/268-4772; www.barracudanetworks.com). "You can buy multiple appliances from the same vendor, too, to protect your different points of presence on the Internet, like two or three email servers."

Before purchasing new appliances, however, chat with current vendors to see if there are any feature upgrades coming soon. Some existing equipment may be getting a powerful revamp soon, eliminating the need to bring in more management firepower.

Creating A Strategy

Taking control of email within an organization can feel daunting, so a good first step is to simply take a look at activity to get an understanding about usage levels, storage needs, and policies, suggests Bradley.

"Email management can feel too complicated to take on," he says. "But if you come to grips with the reality of what's happening, you can take action in small steps."

Tackling compliance, long-term storage, user education, automated controls, log creation, and the many other tasks that turn email management into a lengthy to-do list can seem overwhelming, but Bradley notes that when tasks are spread among the entire IT staff, it can work effectively.

Unlike some roles, such as security management, that are better handled by a single person, breaking up email handling into several parts is ideal, Bradley notes, and involves more than IT.

"For email controls to work, there has to be a cooperative effort in which everyone is involved, such as HR, operations, legal counsel, and other departments," he says. "Policies can be worked out among these groups, and lawyers can assist with compliance issues, for example. Make it a team effort." **P**

> **Taking control of email within an organization can feel daunting, so a good first step is to simply take a look at activity to get an understanding about usage levels, storage needs, and policies.**

Ethernet Converter

Transition Networks GFEB Series Provides Easy Integration

AS A COMPANY GROWS, the need for flexibility and functionality increases, and so does the need for products that will accompany the growth and change. In the past, some Ethernet converters haven't had enough ports or haven't been cost-effective. Transition Networks has set out to solve this problem with the new GFEB series of 10/100/1000 Ethernet converters.

GFEB series products provide an easy way for companies to integrate legacy 10/100 UTP devices into a Gigabit Ethernet fiber network. Also, network administrators have new enhanced features that increase functionality and network management capabilities.

The new GFEB-120 series of 10/100/1000Base-T to 1000Base-X Ethernet copper-to-fiber media converters replaces Transition's GFEB-100 series of media converters. With the new product line, customers benefit from new features such as bandwidth allocation, virtual cable test on UTP port, IEEE 802.1q VLAN tagging and double tagging (Q in Q), IEEE 802.1P QoS, IPv4 Tos/DiffServ, IPv6 traffic class, port-based VLAN to allow unidirectional transmission, RMON counters for each port, Digital Diagnostic Monitoring interface, and the ability to remotely update firmware.

These new converters are fully compatible with the previous models and also include those features found on the GFEB-100 series, including AutoCross, AutoNegotiation (both UTP and fiber ports), Link Pass Through, Pause, Automatic Link Restoration, and switch-selectable speeds.

Unified Communications

Getting It Together In The Data Center

by Curt Harler

• • •

ALL FOR ONE, one for all—that's the premise of UC (unified communications). UC is the integration of several different communications media, letting users retrieve and send voice, fax, and email messages from a single interface, be it a wireline phone, wireless phone, PC, or Internet-enabled PC.

"With a UC solution, you can often do more with less," says Bill Miller, vice president of product management and marketing for Digium (www.digium.com). "It may take a while to complete a complex transition, but if it's small enough, it may have short-term impact."

"The trend is for UC solutions to run on standard Unix-based or Windows-based servers. Some solutions . . . will also run on blade center servers," says Patrick Thorel, solutions manager for Alcatel-Lucent (www.alcatel-lucent .com). In many cases, service providers will also offer the solution as a hosted service, which might be appealing for small to midsized remote office locations. This is in line with the trend to simplify the management, as well as the deployment of applications in large, regional, and small remote sites.

UC does wonderful things for applications, devices, and end users, but what is its impact on the data center?

Factors To Consider

Early on, the business partner deploying the system should synchronize with IT for the network deployment. The first step for an IT department is to decide what capabilities they want to provide to their organization. "UC includes a wide range of capabilities," notes John Robb, vice president of marketing and product management at Zimbra (www.zimbra.com). "Once the IT department has decided on the critical features for their organization, they can design a solution to meet their needs. Many IT organizations want to consider open solutions based on open-source software so that they will have the widest range of integration options in the future."

Know your server count, advises Ryan Bloom, technical marketing engineer for enterprise messaging with Cisco's unified communications business unit (www .cisco.com). "Rack space, HVAC, and power are all tied to additional server count and are all very important when provisioning a solution."

UC applications can consume a good bit of bandwidth—especially if the application includes video, Miller says. "Voice and video applications are also more time-sensitive than others (IM, for example), so quality of service (QoS) both on the LAN and the WAN is important," he adds. "Today, we see Power over Ethernet (POE) switches, QoS devices that prioritize voice traffic, or traffic-shaping devices if the network is complex and has sizable amounts of high-priority traffic for video and/or voice."

"Ensure the networking equipment can honor, pass, or remark the DSCP [differentiated services code point] information coming from the servers, as well as have redundancy and security features enabled,"

Bloom says. "As UC is introduced, new technologies and concepts are also introduced that require ongoing management. As a result, a knowledgeable and/or adaptable staff is important to make the necessary changes for adoption of new technology, especially when dealing with voice traffic."

A network already upgraded to support VoIP should be ready for UC, Thorel points out. Voice messages will be downloaded like emails, so the deployment of media servers in remote offices is needed to guarantee QoS.

"Call recording and voicemail are the two things that can really impact the storage requirements for a voice-enabled UC system," Miller adds. Here, requirements are based on the volume of voicemail, the number of calls recorded, and the code used to record them. Most common storage requirements are voicemail, which is usually driven by number of users, amount of time to save voicemails, and recorded calls.

Of course, storage depends on the quota available to each user, as well as the company's policy on time for storage of backups, and storage requirement will increase. Robb recommends at least 0.8TB of storage for a 500-seat SME, including that for high-availability backups.

The General Timeframe

Once the decision is made, the experts agree that going to UC need not be a time-consuming process. "A UC of 500 seats that is deployed with telephone user interface, text-to-speech, and integration with [an] email server can typically be installed within one week," Thorel says.

For an SME with a brand-new deployment with no need for migration, it might take three weeks to launch a unified messaging system, Robb says. However, if there is a migration involved, Robb says IT should reserve four to six weeks, including a migration period that can happen in the background before the migration is complete.

Miller notes that much will depend on IT bandwidth and priority. "People have used Asterisk to roll out emergency call centers in only a few days, but several weeks tends to be the norm," he says. "It all depends on the number of applications running, the amount of tracking necessary, [and] the exact duplication efforts to re-create what it is replacing."

Realistically, most of the work involved will be planning and design, Bloom says. The actual implementation time when properly executing the plan for a 500-seat UC deployment could easily be accomplished over a weekend.

Executive & End-User Support

All agree that it is important for IT to poll major stakeholders to assess their needs and pinpoint the right solution to fit the needs of each.

"An executive sponsor with a vision is generally helpful," Bloom says, adding that often IT rolling out technology for the sake of it can backfire from the end users. "But if there is a unified vision from the executive of how the technology will revolutionize the way they do business, then it will be better received," he says.

"Internal support services handling Day-2 calls is also very important," Bloom says. Although these should be minimized by taking precautionary measures above, changing any patterns or expected behavior always invokes support calls. If mobile access is part of the solution, the mobility team should also be involved, he adds.

Look at the implications for archival, discovery, and general use. "As people move their mail onto their PCs (personal folders), those messages become inaccessible from the phone," Bloom warns. "Also, it's important to understand the implications on privacy and security if those features are not available."

"Make sure you understand up front what the business needs of the group are: what the sales force needs as far as access online, offline, [and] on mobile devices [and] what the customer support team needs as far as routing of inbound inquiries," Robb says. Know the legal business requirements for retention and security of messages, he adds. "Once you have all the needs in mind, you can find a solution to meet these needs." ▣

Why Implement UC?

Unified communications eases the way people communicate. "Instead of breaking out communication and collaboration into various forms—phone, email, calendaring, instant messaging—a unified solution will keep it all in one place and make it easy to store, back up, and discover if you need that information for later use," says John Robb at Zimbra (www.zimbra .com). "It leaves less of a hassle for the end user as there is less context switching between applications and fewer places they need to go to collect and gather information."

Adds Bill Miller of Digium (www.digium .com), "UC also improves efficiency and reduces delay by tying your business processes directly into your multimodal communications infrastructure."

He suggests getting the marketing communications group to work with the applications team to shape the customer experience for any outward-facing components (Web pages, voice prompts, and the like). Sales should be involved if the application impacts lead-flow.

"Since UM is all about integrating communications into business processes, any department that can benefit from communication-enabled workflow has a stake in the solution," Miller says.

Protect Your Data & The Planet

Kroll Ontrack Offers IT Media Disposal Programs

PROPERLY DISPOSING OF and recycling hardware is an important component in protecting the environment. Especially when dealing with hardware that contains sensitive data, it can be unclear how individuals and organizations should dispose of and recycle materials in the way that protects the data and is environmentally friendly.

Kroll Ontrack recognizes the importance of implementing green initiatives, so it wants to lend a hand to individuals and organizations that would like to find more ways to reduce their environmental impact. The services the company offers protect both vital data and the environment—a win-win situation.

Kroll Ontrack is offering media erasing services to help individuals and organizations discard end-of-lifecycle hard drives. Ontrack Eraser software uses overwriting methods to permanently remove data. Ontrack Eraser services, which Kroll Ontrack specialists perform, provide comprehensive removal of data. Kroll Ontrack specialists use a degausser, a hardware tool that wipes out data using magnetic fields.

The services dispose of certain media by disassembling the good parts for reuse before discarding the storage media. Kroll Ontrack's recycling vendor takes the other parts of the hard drives and storage devices and divides the leftover material into groups, such as metals, circuit boards, copper wiring, and aluminum. These materials are then recycled and reused for other products. Even the components left over are not dumped into landfills or incinerators. Instead, a combination of physical and mechanical demanufacturing methods are used to split up harmful materials from recyclable parts.

Kroll Ontrack Media Disposal Program

Media disposal program protects sensitive data and the environment

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Messaging In The Enterprise

SMEs Are Putting Text Messaging & IM To Work

by Daniel P. Dern

• • •

DURING THE LATE 1980s and early 1990s, email began to replace many telephone chats and voice messages, faxes, pager messages, snail mail, and other business communications. The following decade saw the next generation of computer, cell phone, and PDA users grow up texting and IMing—sending SMS (Short Message Service) messages to each others' cell phones and chatting one-on-one and in groups via instant message from their computers through accounts with public IM services such as AOL, Yahoo!, Microsoft, and Google.

It's no surprise, then, that a growing number of enterprises have put, or are looking to put, text messaging and IM to use.

"What we've found is that enterprise IM is essentially the GenX replacement for email," says Mark Levitt, program VP for the Collaborative Computing And The Enterprise Workplace group at IDC. "They do email, but they prefer IM." And, Levitt adds, "many more-experienced workers also use text messaging."

According to Levitt, this year there are roughly 110 million enterprise users worldwide (meaning IM seats deployed and supported by the company)—up from around 37 million in 2005. In addition, says Levitt, there are 15 million enterprise "managed seats," or accounts from public IM services secured and managed by IT.

For comparison, Levitt says there are an estimated 575 million "unmanaged" consumer IM accounts worldwide (counting only active ones, meaning in use at least once a month), of which about 125 million are used for business, and an estimated 931 million business email mailboxes, used by 785 million business email users worldwide.

Quick Communication

The earliest and most prevalent uses for enterprise text messaging have been by IT and security for such tasks as alerting IT (and advising users) that a service or device is out of service and for quick one-to-one notes, such as "You have a phone call waiting," "Ready for lunch," or "You have a package."

Instant messaging's abilities to create groups (chat rooms), include presence information such as available/busy/out status and location, and archive discussions are causing companies to IM in a growing number of ways.

For example, "If IT wants to bring a server down for maintenance, and there's 16 steps to walk through, all coordinated, they can open a chat room," says Joe Hildebrand, CTO of Jabber (www.jabber.com).

"The business case for IM is employee productivity," says Don Montgomery, vice president of marketing at Akonix (619/814-2300; www.akonix.com), a vendor of security and compliance for corporate use of IM and other real-time communications. "And there's also the less-tangible but still valuable improvement in shared knowledge and collaboration, because IMing is easier than email to ask an ad-hoc question—you know who's online." The ROI business

case for SMS is harder, Montgomery acknowledges. "There's a tangible cost for recipient airtime, and for many companies, where the ROI isn't at issue, you're building a risk case, not a financial one."

Deploying Enterprise IM

Consumer IM accounts are free, but using existing consumer-oriented services won't cut it in today's regulated, compliance-sensitive environment. Your company needs to assess how it plans to make use of text messaging and implement a strategy that reflects both these goals and the IT/legal frameworks they'll work within, including ways to control, filter, or block unauthorized use of public IM services.

In general, basic enterprise IM features to look for include support for end-to-end encryption (vs. sending messages in cleartext) and the ability to archive and easily search and retrieve messages after the fact. Also, stresses Jabber's Hildebrand, your IM infrastructure needs to be able to hook into your network directory service (Active Directory, LDAP, etc.) so you can reuse user credentials.

The components of enterprise IM include:

Messaging/presence client. This is the software running on user devices, such as AOL IM, or the Web-based client. "The standard AOL client includes a lot of things [that] are a distraction in the workplace, like ads," says Stephen Pao, VP of product management for Barracuda Networks (888/268-4772; www.barracudanetworks.com). Also, Pao points out, "Trying to use public IM with your directory is a nightmare."

Messaging/presence server software. An engine such as Microsoft Live Communications Server, IBM Lotus SameTime, Jabber's JabberNow, or applications built using the Jabber XCP (Extensible Communications Platform) that runs the messaging client.

Policy engine. The policy engine may be part of the messaging engine or gateway and is especially important if you allow messaging to go through your Internet gateway to other offices and/or public IM services. The policy engine can check for spam, viruses, and phishing; alert and filter on content; and performing secure archiving.

Storage. Archiving messages and sent files will take storage space. "Messages are very frequent, but short—you can store decades of short messages on a typical appliance," says Barracuda Networks' Pao. "But once IM becomes an official channel for corporate communications, people also start sending files, for immediacy and because of mail server quotas, so disk utilization can get pretty big."

In terms of staff overhead, vendors agree that managing IM should take less effort than email, mostly to make sure the disks aren't filling up.

"IT will need the skill to run an IM server, including a gateway to SMS, to set up alerting and to secure these systems," says Akonix's Montgomery. "It's very similar to email—the same challenges, same policies, and same skill set to administer directories, policies, management, and technical reporting."

Implementing & Enforcing Policies

Implementing enterprise IM capabilities is only half the process—and is likely to be the easier part. The other, harder half is policies, which need to be considered in selecting enterprise text messaging: determining what, if any, your company's regulatory and compliance obligations are regarding the use of electronic communication and then implementing those policies through training and enforcement.

Policy management is particularly important, notes Barracuda's Pao, in industries and companies that aren't regulated, where employees aren't used to their electronic communications being controlled. "And you don't want this information going off to the public networks," Pao points out.

Policy management can be especially challenging for SMS use, notes Akonix's Montgomery. "Most people have their own cell phones—which, in regulated industries, means they might send messages or make calls that are prohibited." ▪

A Secure Virtual Data Container

QuickVault's JumpVault Gives Mobile Devices Powerful Security Features

MOBILE DEVICES are becoming more ubiquitous every day. However, what they gain in convenience they can lose in security. It's common to misplace a mobile device. In either loss or theft, data should be both protected from possible breaches and also able to be disabled remotely.

QuickVault's JumpVault turns nearly any mobile device into a secure, virtual container of information. Size doesn't matter; JumpVault can secure a device with any size internal flash memory. As an added security bonus, the virtual container can be disabled remotely so that the stored data is effectively locked down from any potential breach. Essentially, JumpVault is designed to extend the controlled and secure IT environment to the mobile user.

JumpVault virtual containers are password-protected with built-in 256-bit encryption, remote authentication of devices and users, and meta data logging to keep track of any data movement. When configuring the virtual container, users can include or exclude any files or folders. Supported operating systems include WinXP and Vista, Mac OSes, and Linux. Users can also schedule daily, weekly, or monthly backups and set backup rules. Setup is designed for ease of use and includes drag-and-drop capabilities. JumpVault also automatically compresses files.

QuickVault's servers facilitate a number of functions of JumpVault, including meta data logging and remote data transfer. JumpVault is preconfigured to authenticate with QuickVault's servers, so connection is both simple and secure.

VoIP: The State Of The Industry

Continued from Page 1

that have yet to adopt VoIP could indeed be looking to avoid problems in what they consider an early technology, many experts say that we've already moved past that point.

"We have nearly exhausted the early adopters and now need to cross the chasm," says Arnaud Gautier, vice president of product solutions at Speakeasy (www.speakeasy.net). "This is part of why the buzz has dropped. The early adopters have VoIP and have ceased to talk about it, while the early majority has yet to realize why they need it. The late adopters are the very last group that we won't get until the product is very mature."

To be certain, there were bumps in the early VoIP road, but SMEs didn't encounter quite as many bumps as larger enterprises did. According to Louis Summe, co-founder and CEO of LiveVox (www.livevox.com), smaller organizations were prime targets for VoIP vendors because they had less complex networking requirements with fewer locations and less legacy equipment to replace.

"They didn't have the bandwidth requirements that larger organizations had that often led to quality of service issues that hampered VoIP adoption. Therefore, vendors packaged all-in-one systems that bundled many services conveniently into one system targeted for small businesses. VoIP is now the accepted standard for PBX systems. This provides less room for vendors to differentiate around a technology, leading to less overall hype in the market," Summe explains.

As VoIP continues to settle, we're now seeing peripheral advancements that help to add even more value to the already cost-effective technology. "There are still pockets of VoIP innovation being brought to market, such as IP video, high-definition codecs, and SIP trunking, but VoIP is widely diffused and mainstream," says Chris Gatch, CTO of Cbeyond (www.cbeyond.net).

Roadblocks Remain

As indicated in studies by Savatar and other research firms, companies adopting VoIP are consistently happy with the technology and the many features it brings to the table. But among those that are hesitant to make the move to VoIP, there appears to be a continuing lack of understanding about VoIP's benefits. Speakeasy's Gautier says that many SMEs are not aware of the cost savings and ease of use and management inherent in the technology. Big investments in installations of older technology also appear to be a factor in holding back VoIP.

"Many companies carry capital investments on their books for legacy hardware," Summe says. "Their financial models and metrics make it very difficult to acquire new technology until the old equipment is fully depreciated. What complicates this further is that most traditional financial models do not allow for an easy comparison between buying premise-based equipment and using a subscription-based, on-demand solution. So some businesses simply need to wait until their current equipment no longer has a paper value."

As some companies wait until their current systems have reached the end of the line on their value—Cbeyond's Gatch says the life cycle of a phone system is about seven years—others are waiting for VoIP applications to mature. Summe says that while networking gear was initially able to handle VoIP, the applications lagged behind. Some vendors are now picking up the pace, he says, but others are still operating on applications that cannot take advantage of VoIP's many benefits. **P**

A Unified Front

In Savatar's VoIP study, organizations with 100 or more employees listed auto attendant as the most important VoIP feature in their company. But second in importance was UC, or unified communications, a concept that's beginning to position VoIP as potentially invaluable in almost any business environment.

According to Al Baker, vice president of global CRM/CI solutions for Siemens Enterprise Communications (www.enterprise-communications.siemens.com), the value of VoIP to SMEs doesn't exist in infrastructure changes but instead in process improvements and enablement, which drive speed, efficiency, productivity, and business competitiveness. That focus on process is being increasingly aided by UC, which can deliver voice, video, messaging, collaboration and conferencing, mobility, and contact center abilities over an IP infrastructure.

To the uninitiated, the all-encompassing nature of UC can easily appear daunting, but as VoIP integration continues to become simplified, so does UC. Siemens, in particular, uses an open approach to UC that simplifies the impact on implementation and existing network infrastructure.

"By providing standards-based interfaces and using Web services and open APIs, we are able to integrate with a broad base of applications and network infrastructure components, resulting in a unique and holistic unified user experience," Baker says.

Green Movement: All Talk & No Action?

Continued from Page 1

executives. Apparently, the executives interviewed say their IT managers were not familiar enough with the cost savings and business benefits that green-directed initiatives could offer. From the executives' perspective, IT people could not quantify the amounts they could potentially save and so were unsure how to justify advancing their technological setup to lower their energy consumption.

Yet not only are there bottom-line benefits to pursuing a green strategy; there are top-line benefits, as well, says Kober. "You can increase processing power and efficiencies to the point of driving top-line revenue and business opportunities, as opposed to just saving money so that you are driving business and increasing energy efficiency at the same time," Kober says.

For his part, Jon Affeld, senior director of product marketing at network storage systems provider BlueArc (www.bluearc.com), identifies three primary solutions to address energy consumption issues and improve an organization's carbon footprint. First off, consolidating a large number of servers and storage devices leads to a smaller physical footprint and less energy use. Virtualization, meanwhile, works in conjunction with consolidation by maximizing the servers and storage that are in use. Finally, automating policy management enables administrators to better manage the complexities that result from the hybrid environments that consolidation and virtualization bring about.

According to the study, more than 20% of respondents say they could save $100,000 or more on an annual basis by implementing green measures. Affeld suspects that inertia or reservations on how to start the process keep many of them from acting. Yet there are some simple, straightforward ways to get started. For example, many vendors, as well as several power companies, will help you conduct an audit and assessment of your infrastructure to identify what Affeld calls "quick wins" that would provide immediate benefit.

Kober says you don't necessarily need years of planning or millions of dollars to effect change in energy consumption. Once you get started, you will get huge business benefits, as well as cost savings, both in the short term and the long run.

Putting Words To Intuition

For his part, Joe Pucciarelli, program director of technology financing and management strategies at research firm IDC, says that if you want to make substantive change in your green IT strategy, you need to make it a part of the normal fabric of what you do in your IT center as a whole. For example, most companies have well-defined processes for deployment of their IT assets, as well as well-defined support processes, yet they lack clear-cut processes for decommissioning these same assets.

"You get into discussions of energy efficiency, constraints beyond the particular appliance or device you are looking at," says Pucciarelli. "How do you optimize computer resources for the organization you serve? Something has to go, and you have to reconfigure your data center. It becomes a function of cost, space, and efficiency."

Pucciarelli sees a maturation process that is helping IT put words to intuition, and viewing green IT as part of the life cycle of an asset makes sense. Once that intuition has been articulated, an organization can document strategies to help it realize the vague notion of running a green enterprise. **P**

Hard Numbers From The BPM Study

The BPM (Business Performance Management Forum) "Lean & Green—Reducing IT Energy Drain for Business Gain" study surveyed more than 150 IT executives and professionals to determine to what degree companies have made green IT an integral part of the data center.

About 86% of all respondents agreed that improving energy efficiency and following green IT practices is at least somewhat of a priority. About 54% of these respondents (of the 86%) believe green IT and energy efficiency is either a very important or essential priority.

Despite this awareness, nearly 60% of respondents either lack a specific green IT strategy or don't know whether they have one.

64% of those surveyed said rising cost of energy is the primary driver for adopting green IT protocols. Only 29% cited corporate responsibility, while the remaining 27% cite regulations as a motivating factor.

Meanwhile, IT energy consumption keeps increasing, according to 48% of respondents.

46% of respondents say their degree of power consumption has led them to run out of physical space, power, or cooling capacity for their data centers.

At the same time, almost 60% of respondents cite energy efficiency as a key criterion in selecting data processing and storage equipment.

Keeping Track Of Names, Not Numbers

eTelemetry's Locate 4.1 Gives Administrators Name-Based IP Address Tracking Capabilities

IT CAN BE DIFFICULT to track users on a network when their only identifying mark is an IP address. Locate 4.1, eTelemetry's network appliance for IP mapping, makes it significantly easier by attaching people's names to IP addresses, MAC addresses, and switch ports.

The appliance makes it easier and faster to locate devices, users, and connections and helps administrators react more proactively to network threats.

Keeping track of ports and addresses by name enables network forensic tracking to account for employee network activity. With configurable reports, administrators can detect rogue Wi-Fi networks so they can react in a timely manner.

Locate lets administrators acquire email, instant messaging, and switch port information from unauthorized users and quickly identify and shut them down. An additional feature named Instant Assist can be leveraged by help desk staff to locate a user's network by name and, with a one-click connection, implement Remote Desktop and Remote Assist.

With Locate 4.1, visibility is possible even without a centralized network, and security and identity management features will still benefit a system without a network operating system.

Locate 4.1 works with any wired or wireless network, features plug-and-play installation, and works from a mirrored port to avoid impacting network performance.

Locate 4.1

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Provides easy name-based tracking and management of IP addresses on the network

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LinMin Bare Metal Provisioning 5.1 lets you perform remote, unattended installs of several OSes.

LINMIN BARE METAL PROVISIONING 5.1 simplifies the unattended deployment of systems and virtual machines on new platforms and adds "green" features and innovative provisioning business rules.

With LBMP 5.1, you can perform remote, unattended installations of Red Hat, Novell, Microsoft, Ubuntu, CentOS, Fedora, and Asianux OSes and applications onto servers, blades, PCs, appliances, and virtual machines. LBMP gives IT staff system control with Fire And Forget Provisioning, while also simplifying one-off or mass system deployments with On The Fly Provisioning.

Install LBMP, upload your Linux and Windows DVDs and CDs, and create system roles such as Novell SLES 10 with SAP or Microsoft Windows Server.

With Fire And Forget Provisioning, you assign system roles to systems with unique network settings, host name, and passwords. Specify the provisioning rule such as Always, Never, Boot To HD (to avoid accidental repurposing), or Provision Only At Next Network Boot, Then Boot To HD (to prepare systems and provision them during the next network boot).

On The Fly Provisioning lets you select the system role from the client's UI or assign a default role for all unknown PXE boot requests.

LBMP also captures and restores entire disk images to help with disaster recovery and to reduce energy consumption by parking power-hungry systems unless needed. Once provisioned by LinMin, systems are turned over to your systems management infrastructure.

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Reduces time and cost to deploy or repurpose Linux and Windows servers, blades, and virtual machines

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Agentless Information Recovery Management

Televaulting 8.0 Provides A Next-Generation Platform For Information Recovery

IT PERSONNEL certainly have their hands full with the escalating amount of information stored on networks, server consolidation, compliance, security, and disaster recovery issues always looming. Legacy backup and recovery technologies don't always have what it takes to ensure organizations can map IT processes, reduce IT costs, retain data long-term, and maintain business continuity. So, organizations are turning to agentless information recovery management platforms, such as Televaulting 8.0 from Asigra.

In addition to providing agentless information recovery management, Televaulting 8.0 offers backup and recovery of VMware ESXi, and its intelligent archiving feature provides policy-based backup life cycle management and long-term data retention, while cutting the costs of hardware storage. The multidirectional data center replication supplants storage-storage replication and supports one-to-one, many-to-one, and many-to-many replications. Organizations will have room to grow in both capacity and performance with DS-Client grid-based scalability. Also, Televaulting 8.0 supports SAP, SharePoint, Oracle, Microsoft SQL, DB2, Exchange, Lotus Notes, GroupWise, and others.

With Televaulting 8.0, IT outsourcers and organizations get integrated information recovery management from the data center to the remote office, along with potential solutions for performance loss, manual deployment, burdensome software and information management, limited cross-platform interoperability, and security problems. The nonintrusive platform behaves as a data recovery services "blade" in the outsourcer's, providing capital and operational cost reductions and allowing for the removal of software agents that have damaging impacts. As the only 64-bit agentless information recovery management platform, Televaulting 8.0 offers a centralized approach to agent-based patchwork solutions.

Asigra Televaulting 8.0

Starts at $14,000

Provides data protection and recovery from the data center to the remote office

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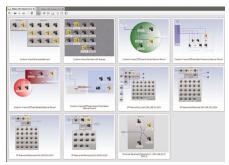
Manage Network Events With AdRem Software's NetCrunch 5

NETWORK MONITORING can be a complicated set of processes. Simple, clear-cut solutions are hard to find, which is why AdRem Software developed NetCrunch 5, a network monitoring solution for SMEs.

NetCrunch 5 boasts the inclusive monitoring of Windows, Linux, NetWare, and SNMP devices. NetCrunch 5 differentiates itself not only by providing such a wide array of monitoring coverage, but also by doing so in an agentless manner.

NetCrunch 5's new features include predefined monitoring policies for major operating systems and applications such as Exchange, SQL Server, Oracle, Insight Manager, IBM Director, and others. NetCrunch 5 is able to monitor an assortment of systems and devices, as it also contains RPC, WMI, SSH, and SNMP monitors and more than 65 built-in network service monitors. A major feature that makes NetCrunch 5 so easy to use is its intuitive user interface. NetCrunch 5 will automatically perform network discovery, a scan of your system that will identify and classify nodes and present them in a graphical map form, making it easier to see where problems occur and making solutions faster and more efficient.

AdRem Software's NetCrunch 5 promises to reduce the cost of IT operations and thus improve company revenue. IT professionals will appreciate lower maintenance requirements and shorter deployment time.

NetCrunch 5 presents data in graphical form, making problems easy to identify and faster to correct.

NetCrunch 5 is designed to run on Windows XP SP2, Vista SP1 (excluding Home), and Windows Server 2003 x32 or x64 and comes in two editions: Premium and Premium XE. The Premium XE edition is intended for a dedicated server, as it is optimized for larger, intensely monitored networks. Both editions include a one-year professional service agreement with annual upgrade protection.

AdRem NetCrunch 5

Premium: starting at $2,595

Premium XE: starting at $7,495

An inclusive network monitoring system that makes solving problems easy with predefined monitoring policies and a graphical interface

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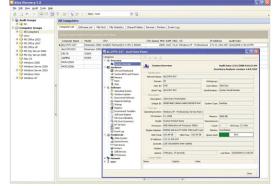
Alloy Discovery Provides All The Necessary Tools

THE INVENTORY of computer hardware and software can be easily overlooked. Alloy Discovery from Alloy Software is a network inventory solution to help SMEs gain tight control over their entire computer inventory through a combination of audit methods that include an agentless on-demand audit, login-script, scheduled task, and the portable audit for non-networked computers.

Alloy Discovery can configure, deploy, and run inventory audits, as well as help analyze the audit results. For flexible deployment, the software offers multiple configuration options, including single- and multi-domain networks; workgroup networks; remote (WAN) sites and isolated networks; and standalone and non-networked computers. Alloy Discovery lets you audit computers on an ongoing basis.

To help maintain an up-to-date inventory, Alloy Discovery includes an automated archive process called "Pruning." This process allows you to define a schedule for the removal of obsolete audit snapshots and determine the file storage path for archived records. The system will then automatically remove obsolete audit snapshots from the Inventory Repository.

With flexible data filtering and grouping, Alloy Discovery lets you sift through data using specific criteria.

The audit results can help you plan for OS migrations and hardware and software updates, and you can integrate the data with other interfacing applications.

Alloy Software Alloy Discovery

100 computer node license: $795, with additional computer nodes $3 each; special pricing for IT service providers

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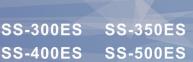
Server Power, Laptop Portability

Eurocom's D90xC Phantom-X Mobile Server Provides Powerful Computing On The Go

THE NEED FOR POWERFUL, server-caliber computing in settings other than a typical office is a large and crucial one. Eurocom addresses this market with its D90xC Phantom-X Mobile Server, a powerful PC in a laptop form factor that weighs just 12 pounds.

The D90xC Phantom-X is a 64-bit system that operates on Intel quad-core Xeon processors running at 2.83GHz with 1,333MHz frontside bus and 12MB of L2 cache. Speed is further facilitated by up to 8GB of DDR2-800 memory.

Although measuring 11.9 x 15.8 x 2.05 inches (HxWxD), the D90xC Phantom-X supports up to three SATA-300 hard drives for up to 1.5TB of storage. Users can also choose between RAID 0, RAID 1, or RAID 5 configurations.

Other features include a 17-inch dis-play, a one-hour backup battery in the event of a power failure, and a rewriteable Blu-ray drive. The keyboard is a full 102-key desktop-type board with a separate numeric keypad. Wireless options include built-in 802.11a/g/n WLAN, as well as Bluetooth.

The D90xC Phantom-X also features a number of I/O ports, including a Gigabit Ethernet LAN with an optional second Gigabit Ethernet port via a PC Express slot. The computer also features four USB 2.0 ports, FireWire, serial and parallel ports, and CRT and DVI-D ports to power up to two additional external displays.

The D90xC Servers are customizable, and the hard drives, memory, optical drives, processors, and graphics are upgradeable.

Eurocom D90xC Phantom-X Mobile Server

$2,454

Server-caliber computing power in a laptop form factor

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Regulating Electronic Communications

Archive Messages With Akonix's L7 Enterprise For The BlackBerry Enterprise Solution

AS PROFESSIONALS USE ELECTRONIC com-munications more and more, organizations must look for ways to supervise and archive this type of communication to pre-vent fines and legal sanctions.

For organizations looking to archive and monitor all forms of electronic commu-nications, Akonix has introduced the L7 Enterprise for the BlackBerry Enter-prise Solution.

As a new addition to the Akonix UPM (Unified Policy Management) platform, L7 Enterprise for BlackBerry archives SMS, PIN-to-PIN text messaging, instant mes-saging, and email, making them search-able, retrievable, and auditable. They can be sorted by employee name, group, or other directory attribute. L7 Enterprise can also offer security, policy management, and content filtering in addition to the archiving, with support for Microsoft Office Communicator Mobile, IBM Lotus Sametime Mobile, and MindAlign Mobile.

The L7 Enterprise provides thorough electronic message storage by integrating with LDAP directories, such as BlackBerry Enterprise Server, Microsoft Active Direc-tory, and email archive platforms, such as EMC EmailXtender, HP Integrated Archive Platform, and Symantec Enterprise Vault. L7 Enterprise provides multiple real-time communications from a single console and the ability to apply and enforce policy through other L7 Enterprise modules available for enterprise and public IM, online conferencing, server-based fax, and VoIP. It will be available as an add-on module for Akonix's A1000 and A6000 appliances or as a Windows Server software module.

Akonix L7 Enterprise for the BlackBerry Enterprise Solution

Starts around $10 per BlackBerry

Helps organizations archive and regulate electronic communications

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Managing Storage

Storage Horizon 3.7 Provides Analysis For Better Management

MonoSphere Storage Horizon 3.7 offers detailed views for more efficient storage management.

WITH THE VARIETY of different storage environments used by SMEs, it can be dif-ficult and time-consuming to manage all of a company's data storage. MonoSphere has upgraded its storage management soft-ware to meet this need.

One of the newest upgrades to Storage Horizon 3.7 is increased support for VMware server virtualization with visual-ization of storage abstraction. The soft-ware analyzes and displays results for storage usage details and relationships be-tween servers, file systems, virtual disks, guest OSes, and guest OS file systems/raw devices, so managers can determine when additional storage needs arise.

Other enhancements include automated chargeback analysis, advanced analytical capabilities, and analysis of database stor-age consumption. With automated charge-back analysis, logical and physical IT assets can be grouped with a vari-ety of different parameters and automatically analyzed to show storage usage.

Advanced analytical capabilities provide reports to help eliminate wasted or unused storage assets. Reports analyze storage consump-tion by volume group, free pool report, LUN-to-disk analysis, and dark storage breakdown. Other new analytical functions include automated scheduling and distribu-tion of analytical reports.

Enhanced database storage con-sumption analysis provides feedback that enables database users to drill down to see details concerning table spaces and data files, as well as view log applications, data vs. log information, and public folder and mailbox rollups. Storage Horizon 3.7 sup-ports Oracle, MS SQL, and Sybase data-bases and MS Exchange.

MonoSphere Storage Horizon 3.7

Starts at $50,000

Provides detailed analysis for simplifying and opti-mizing enterprise storage capacity management

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PRODUCT OF THE WEEK

Visibility Into Change

Global DataCenter Management's nlyte Enterprise 4.6 Features New BI Dashboard 2.0

by David Geer

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PHYSICAL INFRASTRUCTURE management software application suites monitor facilities for data such as peak loads and available power, which impact planned server changes, says Carl Howe, director of enterprise software research at Yankee Group. This information enables data center managers to move servers in and out while mitigating power costs and consumption.

The demand for these software application suites has risen, driven by power and cooling, growing server farms, and shrinking data center real estate, says Richard Ptak, managing partner at Ptak, Noel &

Associates, LLC, a leading IT trends analyst firm. These constraints compact servers into even tighter spots, so heat increases while available power remains constant against multiplying hardware.

Today, these physical infrastructure management application suites run what-if scenarios to determine how moving hardware around may positively or negatively impact not only airflow, cooling, and power usage, but also cable routing and network device and storage device service associations, says Ptak. This enables CIOs and managers from operations and facilities to determine how they can improve efficiencies as the data center grows.

BI Dashboard 2.0 For nlyte Enterprise 4.6

Global DataCenter Management (760/632-1043; www.gdcm.com) has updated its nlyte Enterprise 4.6, a highly customizable physical infrastructure management application suite. The suite now includes the new BI Dashboard 2.0, with lots of features to help CIOs monitor facilities and stay ahead of issues that can arise around changes.

nlyte, the underlying product, collects information about data center architectural assets to create a data model, says Lee Moreton, co-founder and implementation director for Global DataCenter Management. When it's time to make changes, nlyte assesses how each piece of equipment is dependent on another and how server changes will affect the data center, whether they will increase power consumption and heat or realize other thresholds. To help the data center meet change deadlines, the product uses a workflow engine to predict how long changes will take.

"We have added the BI Dashboard to nlyte as a consolidation point," says Moreton. CIOs and operations use it to quickly view the data that nlyte gathers. "The BI Dashboard 2.0 is the first product designed to provide a CIO-level view of comprehensive data center operations from energy consumption and service levels to capacity management/planning for cooling, power, space, ports, and floor weight," says Daniel Tautges, president of Global DataCenter Management.

This information is considerably advantageous for CIOs with the current growth of data centers. "They are running out of power, cooling, and space," says Tautges. Power costs are climbing thanks to new equipment such as blade centers. It's hard for data centers to track service levels for new services, which are added constantly. "CIOs have no warning that projects will not be completed on time or they have run out of critical capacity," Tautges says.

The BI Dashboard informs CIOs well in advance through an alert-based executive NORAD dashboard, according to Tautges. The dashboard offers alerts about the operational pulse of the data center.

nlyte's BI Dashboard 2.0 shows visual status alerts for data center network, power, and space usage; server capacity; carbon emissions; and end-of-life predictions.

"You can drill up to high-level information for CIOs, information about performance, operating costs, and whether you are exceeding thresholds for any service levels," says Moreton. The dashboard also enables you to drill down to information useful to the data center operator. "You can see whether you are breaking any key component parts of the data center," says Moreton.

The dashboard interface presents red, green, and amber identifiers around reported issues. "You can click on each identifier to see what the issue is and determine what you need to do about it," says Moreton.

If employees in the operations department are planning implementations, they can input those potential changes. If the changes will have serious impacts on the data center, the CIO is alerted, and he can consult with operations to avoid disaster, Moreton says.

More Flexible Than Competitors

SMEs can readily customize both nlyte Enterprise 4.6 and its new BI Dashboard 2.0, which isn't possible with nlyte's chief competitor, says Tautges. Regarding the competitor, Tautges says, "They have a proprietary database, and it is not easily extended to support dashboarding or any customization."

GDCM built its nlyte Enterprise 4.6 with BI Dashboard 2.0 on standardized technologies such as its SQL backend database for easy extension and customization, according to Moreton. nlyte can extract information

directly from this database. "That makes it easy for us to add tools such as a dashboard. If customers want to build their own interfaces, they can do that and extract their own information, as well," says Moreton.

nlyte with BI Dashboard 2.0 cuts data center operational costs and improves utilization, Tautges says. It automates and manages service levels and adds/changes, remote physical infrastructure management, physical auditing, and planning and analysis. nlyte eliminates errors, reduces redundant systems, improves economies of space, and increases power and cooling efficiencies, according to Tautges.

"The product gives you information about how you are using the power you have and when you are going to run out," says Moreton. "If you have proposed changes, it tells you what those are going to cost you in power and other resources." **P**

PRODUCT OF THE WEEK

GDCM NLYTE ENTERPRISE 4.6 WITH BI DASHBOARD 2.0

Description: nlyte Enterprise 4.6 with the BI Dashboard 2.0 enhancement is a data center physical infrastructure management software application suite that brings intelligence about physical infrastructure to CIOs and operations to help guide infrastructure changes

Interesting fact: The BI Dashboard 2.0 is the first product to offer CIOs a comprehensive yet targeted view of data center operations that is customized for their needs.

(760) 632-1043
www.gdcm.com

BI DASHBOARD 2.0 FEATURES

The BI Dashboard 2.0 distills a number of reports that are important to CIOs and operations managers, including monthly high-level reports, daily operational reports, and alert-based executive reports. It includes three dashboards: for operations, management, and administration.

The operational dashboard will summarize data center operational pulse in stoplight colors to show the health of critical infrastructure in terms of current infrastructure and based on planned IT changes, says Daniel Tautges, president of Global DataCenter Management.

The management dashboard has the capability to do what-if problem solving. "For example, you can change the rate of change and quickly determine when you will be out of capacity, exceed preset limits, or gain additional costs. You can also understand if you make changes (i.e., improve power phase balance) what your expected cost savings will be," says Tautges.

The dashboards will also let users drill down to relevant reports. "As an example, if the indicator for cooling capacity turns yellow, you can click through to the data center cooling trend report to get the underlying detail," Tautges notes.

"Specific to benchmarks, the nlyte application allows you to establish thresholds for most elements managed by the application, including power, cooling, space, network, service level, etc.," Tautges explains. "So when a threshold is approached, the indicators will turn yellow and if exceeded, turn red."

Versatile Dual-Mode Shipping Case

Safely Transfer Enterprise Hardware With The Pelican 1730

THE TRANSPORT AND protection of sensitive equipment should be important to any company that cares about the integrity of its products. Items such as flat-screen displays, hard drive towers, and server nodes need to be moved with careful consideration so as not to disrupt vital components during ship-

ping. IT professionals who oversee valuable hardware understand how essential it is to have a dependable mode of transportation.

Pelican's 1730 Transport Case functions as a reliable case that protects even the most fragile supplies as they're sent from location to location. With 10,000 cubic inches of

configurable storage, the 1730 is designed to be moved either individually or stacked on pallets. Mobile-friendly features include polyurethane wheels, nylon hubs, and two double-wide handles convenient for manual towing. Stacking multiple cases is never an issue with four extra-deep, base-to-lid locking cleats, and the case's dual-action latches are built to withstand close to 400 pounds.

The automatic pressure equalization valve prevents moisture from entering the case. This feature also enables the case to adapt to any altitude. The optional manual pressure regulation is ideal for housing equipment that requires a temperature-controlled environment. If the humidity level changes inside the case, the humidity gauge will change color as it rises above 40%.

Other characteristics that make the 1730 design unique include the sturdy, yet light, solid wall architecture with open cell core, polymer construction, watertight O-ring seal, and fold-down handles. Inside is the customizable Pick 'N Pluck foam, which comes as a five-piece set.

Pelican 1730 Transport Case

$549.95

Durable storage case safeguards movable supplies and regulates temperature-sensitive equipment

(800) 473-5422

www.pelican.com

Product ✎ Releases

CLIENTS

■ **Advanced Industrial Computer** announced the release of its Aries UP3210 and Aquarius DP5100 motherboards. Both motherboards feature embedded MAX I/O technology, giving OEM/ODMs and systems integrators the flexibility to provide varied options for I/O usage and cards from a single motherboard. MAX I/O technology allows for the use of any card, such as RAID controllers and HBAs, video cards, NIC cards, or any other PCI, PCI-X, or PCI-E cards. The motherboards feature Quad 10/100/1000 server-class Gigabit Ethernet, internal/external VGA and serial ports, four USB ports, and four SATA ports.

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■ **AMD** has announced new quad-core chips for multiprocessor servers. The Opteron SE processors provide scalability for the growing needs of the data center, AMD says. The two-way models are the 2360 SE (2.5GHz) and 2358 SE (2.4GHz); the eight-way chips are the 8360 SE (2.5GHz) and 8358 SE (2.4GHz). They'll be available from OEMs and major system providers, including HP, Dell, IBM, and Sun Microsystems.

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■ A new barcode tracking option from **Microscan** offers unprecedented lens and lighting flexibility, the company says. The Quadrus EZ FLEX C-mount imager is compatible with the full range of C-mount lenses and lights. This allows users to tailor the image for difficult conditions, such as distant or brief scans of damaged codes.

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■ **Motorola's** Enterprise Mobility business has released the MC75, which it says is the latest addition to the company's portfolio of EDAs (enterprise digital assistants). In addition to helping organizations increase worker productivity, the MC75 is aimed at reducing operational costs and errors and enhancing customer service through simultaneous voice, data, GPS navigation, and camera-based document capture. MC75 supports 3G networks based on HSDPA and CDMA EVDO standards and includes integrated 802.11a/b/g, a color VGA screen, and a 2MP camera. Motorola says the device is the industry's first mobile computer compatible with 3G WAN network standards capable of capturing high-quality photos, documents, signatures, and 1D and 2D barcodes. The MC75 runs on an Intel XScale PXA270 624MHz processor and Microsoft Windows Mobile 6.0; it is expected for availability later this year.

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■ **Océ** introduced the Océ cm2522 and Océ cm3522 print, copy, and scan color systems, which are available from the Document Printing Systems division. The cm systems offer ease of use with a large 8.5-inch, full-color LCD control panel; increased productivity with output speeds of 25ppm or 35ppm; versatility in job types; security with equipped network, SMTP, and LDAP authentication; HDD data erase; IP address filtering and SSL encryption; and network connectivity.

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■ **Oracle** announced its Sales Prospector, which is a social CRM (customer relationship management) application that correlates collective intelligence to quickly produce superior leads for sales professionals. The Oracle Sales Prospector mines and analyzes buying patterns and data from internal systems and public information sources to determine the best leads. Because Sales Prospector is a centralized collective repository, sales associates can easily share data with others to build a more complete picture of potential customers. Sales Prospector also supports other CRM systems, including Siebel CRM, Oracle CRM On Demand, the Oracle E-Business Suite, and SAP.

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■ **Planar Systems** announced the addition of five new business projectors to its PR lineup: the PR2010, PR2020, PR5030, PR9020, and PR9030. The projectors feature wide-format (16:9) native resolution. The PR5030 features three brightness modes, RS-232 connection, and a full-featured remote control. The PR9020 and PR2020 feature 3LCD technology. The projectors require a single long-life lamp and offer a 4Wx4 speaker system. The projectors will be available this summer.

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■ **Xerox** launched a free and downloadable print driver called the Mobile Express Driver that lets mobile office workers print to any available printer or MFP on a network. The Mobile Express Driver for Windows XP and Vista works with both Xerox and nonXerox PostScript printers and MFPs. In addition, the interface of the Mobile Express Driver shows the available features for a selected printer or MFP, such as two-sided printing or scanning capabilities. The Mobile Express Driver automatically loads users' favorite printer settings for different applications. Xerox also launched the Global Print Driver for Windows XP and Vista, a print driver that allows IT administrators to add new printers and MFPs to an organization's network. The Global Print Driver simplifies driver deployment by bundling all the capabilities and features of various devices into one easy-to-install package. Free of charge, the Global Print Driver lets IT administrators preconfigure default settings before distributing them to users. The Global Print Driver supports both Xerox and non-Xerox networked products that use standard PostScript, PCL 5, and PCL 6.

MESSAGING & TELEPHONY

■ **AXS-One** announced its Dynamic Data Migrator, which allows business users who migrate from Lotus Notes/Domino to Microsoft Exchange (or vice versa) to access legacy emails created in their previous messaging environment in a timely, cost-effective manner. The Dynamic Data Manager will be available as part of Release 3.8 of the AXS-One Compliance Platform, due later this year.

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■ **CounterPath** announced Quick Conference, a SIP-based audio conferencing

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Mobile Management

Control Wireless Networks
With AirWave Wireless Management Suite 6

View and control all aspects of your wireless network with the AirWave Wireless Management Suite 6.

THE MOBILE workforce is growing as wireless technologies emerge and evolve. While this is great for the success of organizations, it can be a burden to IT support teams. But with a program that gives you visibility and transparency from a single console, such as the AirWave Wireless Management Suite 6, organizations can configure and manage an entire wireless network without additional costs.

AirWave Wireless Management Suite 6 from AirWave, a division of Aruba Networks, can help organizations migrate to 802.11n technology without discarding legacy infrastructure. The application also features a new Help Desk module that integrates with existing service desk solutions to provide IT with automated diagnostics and real-time monitoring for more efficient resolution of end-user issues.

Access points, routers, switches, authentication servers, and management servers are visible across wired and wireless infrastructures. This program provides comprehensive reports and centralized control of tens of thousands of wireless devices.

The AirWave Management platform provides real-time monitoring of wireless users and devices, as well as multivendor support. VisualRF software features direct CAD and bulk floor plan import to make console views more user-friendly, along with visual display of alerts and error conditions. For enhanced security, the platform includes RAPIDS rogue AP detection software. The AirWave Master Console offers scalable centralized configuration and detailed reports of the network's performance, groups, locations, and individual devices.

AirWave Management Suite 6

Starts at $5,000

Helps organizations configure and control an entire wireless network from a single console

(866) 802-1121

airwave.com

ARUBA
networks

Helping Organizations Meet Compliance

Global DataGuard Offers Security Suite & Services

GLOBAL DATAGUARD is offering a full suite of enterprise-class products and services to assist organizations in protecting confidential healthcare data and electronic healthcare transactions. Within its Enterprise UTM portfolio, the Enterprise UTM++ solution and ASM (All-n-One Security Module) for Enterprise UTM integrate a range of enterprise-class security applications, including firewall, antivirus, and antispam; a VPN and Web content filter; IP reputation; IDS and IPS; network behavioral analysis and correlation; vulnerability scanning; a security event manager for global, network, and vendor threats and detected vulnerabilities; and network access control and monitoring.

Because all of the Enterprise UTM security applications are integrated at the architectural level, organizations realize better performance and service at a lower cost of ownership—up to 60% over standalone products. Application modules can be deployed as part of a complete security infrastructure or can be added incrementally, as business and compliance requirements evolve.

The All-n-One Security module for Enterprise UTM comes in four options (with firewall, VPN, antivirus, antispam, content filter, IP reputation, and IPS

included), with pricing starting at $7,500 for an ASM core module. Custom configurations for the Enterprise UTM++ solution are designed and priced based on an organization's unique network requirements. Pricing for turnkey managed services starts as low as $1,000 per month.

Global DataGuard's approach to supporting organizations in improving their compliance posture includes aspects such as behavioral analysis and correlation, security monitoring, vulnerability management, network access management/monitoring, assessment, training, project management, policies and procedures, and regulatory compliance audits. It provides a risk-based methodology, regular reviews of security controls, full life cycle device management, and audits and assessments for workforce and training policies.

Global DataGuard Enterprise Unified Threat Management Suite

Helps organizations protect healthcare information

Starts at $7,500 for an ASM core module

(972) 980-1444

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Global DataGuard

Product ☐ Releases

solution that allows businesses to easily manage their own in-house conferencing services. Quick Conference features Web-based management for users who want to visually manage their conference calls; integration with Bria; remote management that allows employees to use their smartphone or PDA to control the conference; calendar integration; and openness to AII, which gives all employees access all the time.

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■ **Kofax Communication Server 8.0**, a consolidated communication platform designed to route all inbound and outbound messages across large distributed environments, is now available from **Kofax**. The server is designed to enable data from such diverse formats as email, fax, voicemail, and SMS to be converted from one format to another. Additionally, each message can be archived to meet compliance standards. Kofax Communication Server 8.0 can be connected to SAP, Microsoft, Novell, IBM, and other ISV systems applications.

■ **Patton-Inalp Networks** SmartNode S-DTA (Smart-Digital Telephone Adapter) uses carrier-class software—Patton's SmartWare—to connect SOHO ISDN phones to a VoIP system. It's interoperable with major IP PBXes and softswitches and can support up to two simultaneous voice or fax sessions. The SmartNode S-DTA provides service providers with a reliable, capable double- or triple-play option.

■ **Berkeley Varitronics Systems** has announced a Wi-Fi analyzer for 802.11a/b/g/n networks. The Yellowjacket-TABLET is based on a Samsung Q1 Ultra Premium tablet UMPC with a touchscreen and Windows XP. It covers wireless bands such as Wi-Fi, WiMAX, Bluetooth, ISM, and Public Safety in the 2 to 5.9GHz spectrum and can demodulate 802.11a/b/g/n packets providing MAC, SSID, SNR, and other data.

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■ **Citrix** has announced its latest release of the Citrix Access Gateway including integration with Citrix XenDesktop. Through SmartAccess technology, data centers can communicate directly to applications and extend virtual capabilities to desktops. The highly scalable Access Gateway appliance helps organizations securely deliver XenDesktop to thousands of users. Fast Configuration wizards automate common XenDesktop tasks, which simplifies overall deployment. Vice President of Product Marketing at Citrix Systems, Sanjay Uppal, says, "By integrating scalable secure access with the Citrix XenDesktop product line, we greatly simplify the control of critical data center resources without compromising security."

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■ **Columbitech** has released its environmentally friendly mobile VPN for wireless networks. This mobile VPN extends the lifetime of mobile devices, conserves battery power, and offers secure remote access for networking. The solution runs on 40% less battery power than a standard VPN and supports virtualization without the need for additional servers. "Our mobile VPN offers a win-win solution for companies looking to go green with their IT needs. It benefits both the environment and a business' bottom line—conserving an incredible amount of energy in day-to-day IT needs while guaranteeing full security and improving overall efficiency," says Lars Resenius, CEO of Columbitech.

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■ **CA** introduced its IT Process Manager, allowing customers to design, build, manage, and report on automated workflows that support IT operations processes. IT Process Manager delivers drag-and-drop integration with easy configuration and intelligent process management to assist in improving performance and availability of critical business applications. Features of CA IT Process Manager include cost-efficient compliance in complex environments, shifting of resources to strategic tasks, and optimizing uptime and availability of configuration deployment and management. CA IT Process Manager combines three components: orchestration, integration, and dynamic process automation to provide three basic services. These include IT Process Management, the visual mechanism to design, monitor, and report on end-to-end processes; Process Manager Integration Packs that read and modify data to control or initiate IT tasks; and Process Manager Templates to create dynamic, rule-based workflows across multiple systems.

CA also announced the OPS/MVS EMA (Event Management and Automation) r11.6, the latest version of its mainframe automation and management system that features a SOF (Switch Operations Facility). This SOF allows mainframe system administrators to quickly visualize, monitor, and manage the health of complex Enterprise Systems Connection and Fiber Connectivity infrastructures. CA OPS/MVS EMA r11.6 can check the health of the system proactively and is designed to integrate with products from CA and third parties, including CA SYSVIEW Performance Management, CA Automation Point, Unicenter Network and Systems Management, CA Service Desk, and IBM Tivoli OMEGAMON.

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■ **Fujitsu Network Communications** has announced FLASHWAVE CDS Packet Optical Networking Platform, a platform designed to enable networks to transition to connection-oriented Ethernet services. FLASHWAVE CDS is designed to provide high-density, connection-oriented Ethernet, SONET, and TDM circuit-emulation services, all in a small modular platform. Further, it addresses aggregation and transport applications such as DSLAM (Digital Subscriber Line Access Multiplexer) transport, mobile backhaul services, and Ethernet business services. Physically, the system is a modular two-slot platform that occupies two rack units and can accommodate a number of low-cost, pluggable, multiservice interface units.

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■ **ManageIQ** released version 2.0 of its EVM (Enterprise Virtualization Management) Suite. EVM provides insight, control, and automation to help enterprises maintain the manageability, reliability, and security of their virtual infrastructures. Version 2.0 expands EVM's policy-based virtual configuration management capabilities, and it also provides enterprises with new features for supporting advanced virtualization deployments. EVM Insight delivers real-time visibility with continuous, agent-free discovery and tracking of configuration information, configuration drift, genealogy, and relationship mapping. The real-time visibility into virtual environments and the continuous policy-based control EVM provides help with self-service provisioning and delegated administration. The baselining and drift comparison in version 2.0 are expanded to include hosts, network resources, VM disk information, management metadata, and virtual hardware configuration.

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Product ☑ Releases

■ **NetPro** has announced three solution upgrades for the Windows environment: Access Manager 3.0, ChangeAuditor 4.6, and LogAdmin 3.0. According to NetPro, all three enhancements optimize reporting for better network compliance. NetPro AccessManager 3.0 automates and manages security settings, drives compliance with granular access and reports for Exchange/SQL Server, and maintains great control through tracking the approval system. ChangeAuditor 4.6 expands coverage of owner and nonowner mailbox events by auditing user activity. LogAdmin 3.0 supports Windows, Unix, Linux, and NAS/SAN through comprehensive event log management.

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■ New from **Network Instruments** is its 1Gb buffer Aggregator nTAP. The buffer has a pooled design to minimize packet loss on full-duplex Gigabit streams. In addition to continuous availability, the Aggregator nTAP also provides administrators with network intelligence and aggregates duplex traffic into a single flow for easier analysis and more effective security measures.

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■ **Oracle** released the latest version of the Oracle Software Configuration Manager, which collects and manages detailed system configuration data to assist Oracle users with support issues. The Oracle Software Configuration Manager also works with personalized knowledge management, automated health checks, supportability and management tools, improved dashboard reporting, and information management. The Oracle Software Configuration Manager is available for free to customers with current Oracle Premier Support contracts.

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■ **Stratus Technologies** announced its Stratus Avance software, which uses embedded virtualization and x86 servers to provide improved levels of availability without the complexities of high-availability cluster appliances. Stratus Avance is targeted at the SME market and edge applications in distributed networks where IT staff support is minimal. Customers can install Stratus Avance on two Ethernet-connected x86 servers with operating systems, and Stratus indicates the software will install in less than 15 minutes. Stratus Avance processes data on one server while the data is simultaneously written to the other server, which can assume the processing duties should the primary server fail. Avance monitors the health of both servers and will alert users when repairs need to be made.

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■ **Sun Microsystems** has unveiled Sun Java CAPS (Composite Application Platform Suite) 6. This application is the newest version of Sun Microsystems' SOA (service-oriented architecture) and business integration software. Java CAPS 6 was created so that users can utilize new and existing IT investments to make an infrastructure that is more flexible and more in tune with the current needs of their organizations. Java CAPS 6 added new features, including a modular ESB (Enterprise Service Bus) for quickly coupling applications, better event processing and business process management, and configuration with latest versions of the Sun GlassFish Enterprise Server and NetBeans IDE (Integrated Development Environment) software.

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■ **Talend** has revealed that the 2.4 version of Talend Integration Suite, an open-source product, will include Change Data Capture. This will find changed records in real time to immediately send the changed data to other applications, which reduces the time needed to load and update data during

the ETL (Extract, Transform, Load) process. Version 2.4 of Talend Integration Suite builds on Talend Open Studio and adds features such as automatic analysis of meta-data dependencies, automatic component installation, and new lookup mode. The 2.4 version of Talend Integration is designed to have an easy-to-use graphical environment, simplified development, automatic deployment, and advanced production monitoring.

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■ **Tripwire** announced the availability of Tripwire ConfigCheck, a free utility that quickly assesses configuration settings for the VMware ESX hypervisor and recommends steps to take to ensure even greater security. Tripwire ConfigCheck provides an immediate assessment of the configurations of a VMware ESX hypervisor, comparing them against VMware hardening security guidelines, which are best-practice recommendations for optimal security in virtual environments, and then providing remediation instructions if necessary. With Tripwire ConfigCheck, customers gain immediate visibility into risks that might exist in their virtual environment due to misconfiguration. ConfigCheck also fixes any improper settings that could present future risk.

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■ **Uptime Software** made affordable enterprise-wide cross-domain, cross-environment system monitoring and capacity management a reality with the immediate availability of up.time 5. This release adds capabilities such as SLA (service level agreement) management that tracks and proves IT delivery quality, advanced virtualization management for VMware and AIX environments, and a fully integrated ATM (Application Transaction Monitoring) system to help system administrators proactively monitor their enterprise applications.
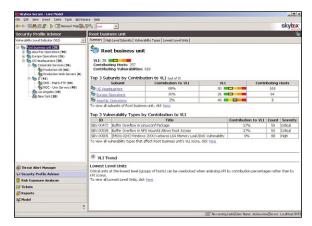
PHYSICAL INFRASTRUCTURE

■ **Aten** has announced details of the latest products in its enterprise KVM line, including the CL5716 16-port PS/2-USB LCD KVMP Switch, which the company says is the world's first LCD KVM switch with fingerprint recognition. Among the other enterprise-based products are the KL3116T 16-port Dual Rail Touch Screen KVMP Switch, which is the company's first LCD KVM switch to feature touchscreen control without drawing out the keyboard; CN8000 KVM on the NET, an add-on remote server management product; KH2508/KH2516 CAT 5 KVM Switch, a two-console, 8/16-port CAT 5 KVM product; and KN4132 KVM Over the NET, an IP-based CAT 5 KVM switch. Additionally, Aten released details on new SOHO KVM products, including the CS1732B/CS1734B, a 2- and 4-port USB 2.0 KVMP switch on OSD. Further, the company has released the KE8220 Virtual VNC Console, a wireless presentation system.

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■ **Eaton** has released its Powerware BladeUPS Maintenance Bypass Cabinet, which allows IT and facilities managers to integrate power transformation, power distribution, and maintenance bypass into one cabinet. Eaton says the cabinet complements a 60kVA Powerware BladeUPS parallel system designed and optimized for high-powered blade servers and high-density computing settings. The cabinet is designed so that power can be transferred to a full-system bypass, allowing for service, testing, and maintenance to be performed on up to a full rack of Powerware BladeUPS without interrupting power to the critical load. Eaton says if repair to the

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Product ✎ Releases

UPS must happen internally, the UPS can be completely isolated from utility power for safe perform service without voltage present. Other features include two 42-pole Cutler Hammer panel boards and a freestanding design that works with other data center equipment.

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■ **Tripp Lite** has released a new rackmount console designed specifically for small portable racks and similar installations. The B021-000-19 model offers a complete network control solution in a 1U rack-mountable pull-out with a housing 19 inches deep. The console's size makes it suitable for applications where standard consoles won't fit, including ambulances and similar emergency vehicles that have built-in racks. The console includes a built-in 19-inch LCD (1,024 x 768), keyboard, and touchpad. Additionally, the console is compatible with USB and PS/2 servers, as well as KVM switches. Mounting hardware is included, and special software to integrate the console with servers or KVM switches isn't required.

SECURITY

■ **Absolute Software** has announced the availability of Computrace Mobile, a data protection solution for handheld devices. With Computrace Mobile, organizations have the ability to remotely manage handheld devices, select or delete files in incidents of theft, and reduce costs associated with managing mobile devices and users. Computrace Mobile is supported on all Windows Mobile 5 and 6 handhelds, including MOTO Q, Treo 750, and Samsung BlackJack.

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■ **Attachmate** announced Reflection for the Web 2008, a terminal emulation software that securely connects browser users to applications on IBM, HP, Unix, OpenVMS, Unisys, and Airlines hosts. Reflection for the Web 2008 features authentication and encryption capabilities to safely deliver host applications across public Internet. A secure token authorization feature adds a layer of Lightweight Directory Access Protocol access control in front of host applications to help integrate them into modern security infrastructures. Customers can protect the host session with secure token authorization and AES or 3DES encryption over SSL/TLS; you can authenticate users with Active Directory, LDAP, X.509 smart cards, Kerberos, and Web portal authentication methods. Administrators can use existing LDAP users and groups to control user access to sensitive data and resources.

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■ **CA** announced the CA Access Control Premium Edition, a solution designed to offer cross-platform creation, deployment, and management of complex, specific role-based access controls for servers; it does this while complying with legal, corporate, and government regulations. Access Control features policy-based compliance reporting that allows customers to gain insight into policy statuses at any given time; out-of-the-box policy reports that display cross-platform policy information; open-policy reporting, which allows data feeds to third-party databases for custom reports; and advanced enterprise policy management, which helps to reduce costs of deployment and maintenance. CA Access Control supports VMware ESX, Sun Solaris 10 Zones, Microsoft Virtual Server, Linux XEN, and IBM AIX, among others.
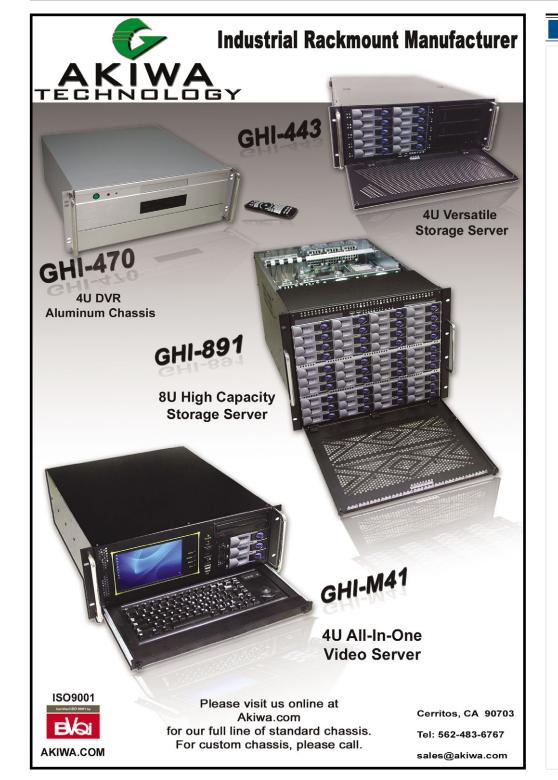
CA also unveiled the GRC Manager 1.5, a risk management, compliance, and audit solution that assists IT workers in managing compliance and risk initiatives across the enterprise from a central location. GRC Manager 1.5 includes new policy management capabilities such as creation, maintenance, approval, and communication; additional performance and risk metrics support to define and manage KPIs (Key Performance Indicators) and KRIs (Key Risk Indicators); program management automation to track costs for specific GRC programs with customizable reports; and enhanced controls monitoring to integrate GRC Manager 1.5 with CA Security Compliance Manager for identity monitoring.

Additionally, CA announced its Identity Manager that helps customers manage identity life cycles from creation to modification to removal across mainframe, distributed, and Web environments. CA Identity Manager features streamlined architecture; installation and administration scalability for installation and configuration; expanded growth for IT environments, enabling customers to embed identity management functions into familiar interfaces; expanded reporting of security and audit provisioning processes; standards support for IPv6, an Internet Protocol which expands the Internet address space; and FIPS140-2, which provides insight into U.S. government security standards.

CA also announced the planned release of CA Software Compliance Manager, a manager that helps customers assess risks associated with software license compliance. Software Compliance Manager reduces IT costs that come with ineffective software license management by establishing sustainable and continuous compliance processes. Features include the Compliance Engine, which is designed to determine compliance status and optimize the use of licenses; License Administration, which records license information and audits proof of ownership; License Event Manager, which provides continuous views of software license via a dashboard; Inventory Integration, which integrates software data from CA and third-party inventory tools; Inventory Data Interpreter, which cleans, normalizes, and classifies software data obtained from inventory tools; and Knowledgebase, which provides a base of software license compliance information and software knowledge.

Finally, CA announced CA Security Compliance Manager, a security product that helps customers address IT security and compliance with legal, corporate, and government regulations. Security Compliance Manager helps customers by providing the following services: Actionable Remediation and Validation, which helps remediate policy or compliance violations; Entitlement-centric Visibility, which collects compliance data to allow customers to make better decisions regarding who has access to what information; and Orphan and Inactive Accounts Reporting that establishes continuous compliance processes to identify inactive accounts. CA Security Compliance Manager deploys easily due to an open and flexible architecture and integrates with other CA offerings, particularly CA Identity Manager and CA Access Control Premium Edition.

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Product ✍ Releases

✍■ **Dell** announced AlertFind, a crisis management and alerting service designed to help businesses contact large numbers of employees and customers during a crisis through all available communication channels. AlertFind allows businesses to communicate globally, providing in-bound number support for up to 26 countries with more being added. When employees call the inbound numbers, they are able to access information such as sent notifications, complete poll surveys, conference call bridges, or general information. In-bound numbers also allow employees to access information and instructions in the event of a disaster. Managers can set strict permissions on who can send alerts and see contact information.

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■ **D-Link** has released two network cameras designed for monitoring a home or small office over an existing wired or Wi-Fi network with high-quality, streaming MPEG video. The cameras include the DCS-920 Wireless G Network Camera for connecting to a home or small business wired or Wi-Fi network, and the DCS-910, a wired-only model for connecting to home or office networks using standard Ethernet cables. Both cameras come with D-ViewCam 2.0 monitoring software, which has the ability to enable the simultaneous viewing of up to 32 cameras with remote control features. Access and control of both cameras require a Java-enabled browser, and both cameras are capable of taking snapshots and recording from the browser to a local hard drive. Both cameras can also detect motion and send email alerts when motion is sensed. The DCS-910 is $99.99, and the DCS-920 is $119.99.

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■ EMC's Security Division, **RSA**, released the RSA SecurID 1100 Display Card, which is a flexible event-based OTP (one-time password) authenticator card ideally suited to securing transactions, account access, bill pay, and money transfers for financial institutions and their customers. About the size of a credit card, the RSA SecurID 1100 lets users press a button to display a one-time password that grants them access to the restricted site or data. The RSA SecurID 1100's two-factor authentication also makes it perfect for use in the United States and abroad.

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■ **Lieberman Software** released Enterprise Random Password Manager, software designed to automatically discover and update privileged password account use in the enterprise. Enterprise Random Password Manager continuously randomizes all local passwords and updates the places where the credentials are referenced, such as services, tasks, and objects. The software will help deal with threats posed by decrypted local passwords leading to peer-level network access. Enterprise Random Password Manager lets you manage and update the privileged passwords, as well as the objects in the enterprise that use these privileged credentials. The software also automatically propagates password changes to identify and enumerate locations in the enterprise where accounts are used.

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■ **McAfee** announced the McAfee ROI calculator. This free tool helps organizations quantify the financial benefits of deploying McAfee solutions for endpoint security, email and Web security, and network security. The calculator uses Forrester's TEI (Total Economic Impact) methodology to estimate the total expected cash flow and return of using McAfee. Working with industry averages, the calculator can be customized to any size of customer. The costs are based on auditable data such as full-time employee costs (not soft costs) and cost of downtime, usually associated with these types of studies. The calculator bases its results on the operational efficiencies gained by having a single console, the potential decreases in license costs, and the impact of being able to identify and respond more quickly and effectively to security incidents.

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■ **SafeNet** has unveiled the first complete portfolio of MACsec embedded security solutions for LAN and Metro Ethernet networks. The QuickSec/MACsec Security Toolkit and SafeXcel IP MACsec Security Engines feature a fully integrated, standards-compliant software and hardware hybrid security solution. Networking equipment manufacturers, network-attached device manufacturers, and semiconductor vendors can utilize this solution to decrease costs and production time. According to Simon Blake-Wilson, managing director for embedded security solutions at SafeNet, "SafeNet is dedicated to developing and maintaining a comprehensive, future-proof suite of embedded security solutions for the networking industry. The company is proud to once again demonstrate its commitment by being first to market with a complete portfolio of standards-compliant MACsec embedded security solutions."

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■ **Secure Computing** unveiled Secure Firewall (formerly known as Sidewinder) Geo-Location. Secure Computing's Secure Firewall provides organizations with the ability to reduce their exposure to attack by shrinking the size of the Internet. Geo-Location does this by blocking or allowing the organization to apply additional in-depth application filtering on all traffic from countries that they do not do business with or that are known originators of malicious hacking. When Secure Firewall Geo-Location is implemented at the network perimeter, Geo-Location in conjunction with Secure Computing's TrustedSource reputation-based filtering reduces an organization's threat exposure by defining policies that rely on a combination of IP address reputation, as well as country code.
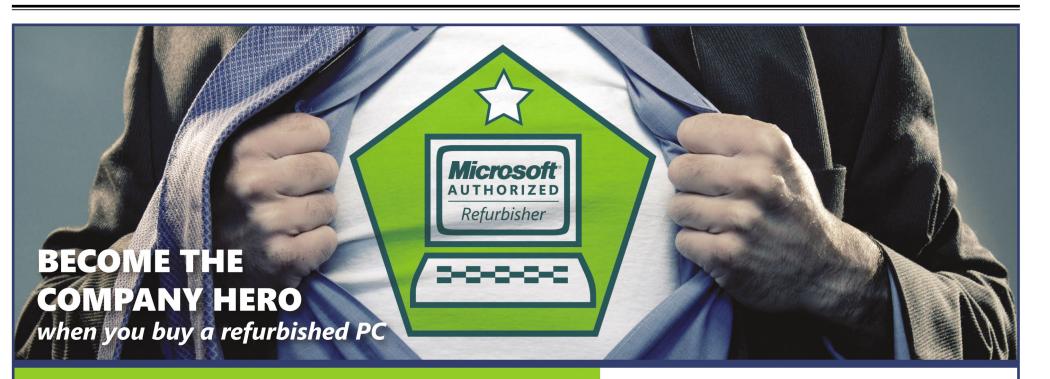
Secure Computing also introduced Secure Hybrid Delivery Architecture for Web protection to provide access to Web security via tools that can combine—in any configuration—a virtual appliance with hosted SaaS and integrated hardware/software appliances. Secure Hybrid Delivery Architecture will deliver virtualized and hosted service delivery platforms, portable services across delivery platforms, hybrid service deployment, and common policy definition and administration. The architecture can be deployed as an appliance, virtual appliance, or hosted service. The flexibility allows administrators to choose a security solution that fits into existing infrastructures while setting customers up for future evolution and growth. Additionally, administrators can adjust the security to improve operational efficiencies, cost, and resource optimization.

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■ **Special Operations Software** announced Specops Password Policy 3.0, a password policy enforcer that allows

Product ✑ Releases

system administrators to specify multiple password policies. The software can be configured in any number of Group Policies within Active Directory, and version 3.0 offers granular password complexity and greater flexibility when defining rules for password policies. Other enhancements in version 3.0 include support for Windows Server 2008, a password policy rule that provides the ability to disallow an ending digit, a new dictionary option for disallowing reversed dictionary words, and new email options. There's also a customizable text option that's included with the message end users see when failing to comply with the password policy during a password change.

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■ **Symantec** has released updates to Control Compliance Suite 9.0 in order to be more aligned with IT GRC (IT Governance, Risk, and Compliance) initiatives within global organizations. Control Compliance Suite 9.0 allows users to automate IT compliance processes and decrease the risk to critical information while reducing the costs of controlling compliance. Control Compliance Suite 9.0 is designed to have flexible and scalable deployment options for large and complex IT infrastructures. Additionally, it allows for global coverage for regulatory content, frameworks, and best-practice standards.

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■ **Websense** announced the managed release of the Websense Web Security Gateway. Designed to solve the challenges brought on by the explosion of Web 2.0 technologies, including user-generated content, mashups, interactive networking sites, and Web applications, Websense Web Security Gateway provides inline inspection of Web traffic, SSL traffic, Web 2.0 applications, and more than 100 network protocols. Websense Web Security Gateway also classifies new and dynamic content in real time, determining immediately whether the Web site and its content are safe. The software categorizes actual content on Web sites, providing an unparalleled granular approach that allows users to access Web sites but blocks portions of sites deemed inappropriate or a security risk. This breakthrough solution is achieved by implementing the Websense Threat-Seeker Network identification and classification technologies at the customer's gateway, protecting them from never-before-seen threats and Web content.

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■ **WhiteHat Security** and **Breach Security** announced a joint solution to deliver automated, real-time protection against application-level threats. The joint solution combines Breach Security's ModSecurity Web application firewall with the WhiteHat Sentinel Service. WhiteHat Sentinel automatically generates blocking signatures for identified vulnerabilities, mapping a customer's specific security vulnerabilities to defined ModSecurity rules for the most common forms of attack, such as SQL injection and cross-site scripting. Joint customers can identify and repair Web site vulnerabilities quickly and with very little effort. Current ModSecurity customers that also subscribe to WhiteHat Sentinel will receive the integration free of charge. Current WhiteHat Sentinel customers will have immediate access to the integration as a feature of the service.

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STORAGE

■ **Addonics** has announced the Dual CF-SATA HDD adapter that lets users convert any 2.5-inch hard drive-based PC or equipment into a solid-state Compact Flash system. The adapter creates an SSD with up to two Compact Flash cards using a SATA or USB connection. Users can configure the CF cards as RAID 1 or 0 or as one large CF drive. The adapter comes with a built-in mounting bracket that's capable of being used as a replacement for a 2.5-inch SATA hard drive, meaning a device such as a notebook that uses a 2.5-inch SATA hard drive can be converted to use the CF media. When installed, the CF media appears as a SATA hard drive to any operating system. The adapter does not require drivers for installation. The Dual CF-SATA HDD Adapter is $79.99.

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■ **B&L** announced the release of Archived Data Manager, a Web-based application that consolidates historical backup catalogs and makes managing and accessing offline archived data easy. Archived Data Manager consolidates tape backup catalogs, including Symantec's Veritas NetBackup. Archived Data Manager features alerts for expiring files and the ability to search for data based on a variety of criteria, including backup application, server, client file name, date, time, and expiration date.

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■ **Brocade** announced Brocade File Insight, a free downloadable utility and related assessment program to help customers address the growth of file data stored across their distributed networks. The utility is designed for Microsoft Windows administrators in charge of managing distributed file environments using SMB (Server Message Block)/CIFS (Common Internet File System) protocols. Brocade File Insight allows IT administrators to obtain an overview of Windows file data by collecting file metadata and producing reports on file age, size, type, and other statistics gathered across a company's file storage environment. Brocade File Insight can report across heterogeneous SMB/CIFS-based storage environments. It's available as a self-assessment utility and as a part of a streamlined Brocade File Insight Value Assessment engagement.

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■ **Elcom** has announced a new version of Advanced EFS Data Recovery, a data recovery tool designed for Windows 2000/XP/2003/Vista and Windows Server 2008. The software is designed to protect unauthorized access to files even if a user gains access to the hard drive; it also decrypts protected files and helps users recover data that was inaccessible due to errors such as removing users and user profiles, misconfiguring data recovery authorities, transferring users between domains, and moving hard drives to a different computer. Other features of Advanced EFS Data Recovery include wizards for easy setup, backup/restore keys, and the ability to scan for keys at the file level or by sectors. The Standard version costs $149, while the Professional version retails for $299.

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■ **FalconStor** VTL (Virtual Tape Library) OpenStorage Option for integration with the Veritas NetBackup OpenStorage API from Symantec is now available from **FalconStor Software**. VTL OpenStorage Option is designed to ensure business continuity by speeding up and simplifying

Product ✎ Releases

backup and recovery with high-speed Fibre Channel connections using intelligent disk devices connected to NetBackup. Features include migration of backup images from disk devices for archiving, optimized duplication of backup images from local to remote sites for disaster recovery, and overall management simplification.

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■ **Imation** has announced a new line of EHDD (external hard disk drives) designed for both mobile and desktop users. The line includes the ultra-slim, 2.5-inch Imation Apollo Portable Hard Drive. A 3.5-inch version aimed at desktop users, the Imation Apollo Pro, will be available later this year. The Imation Apollo Portable Hard Drive is USB-powered, lightweight, and durable. It's just over 0.5 inches wide and weighs 0.35 pounds. It offers a capacity of 320GB, and a 500GB capacity version will be available later this summer. The drive comes with total Media Backup software to help users back up, schedule, synchronize, and restore functions on both Macs and PCs. The drives range in price from $149.99 to $222.99, based on capacity.

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■ **Kroll Ontrack** has announced that it has developed the ability to perform data recovery services on VMware systems which can occur during and after server virtualization. Specifically, Kroll Ontrack can recover folders and files on virtual systems, which provides businesses with important resources after data loss. VMware Infrastructure 2 and 3 (ESX Server, VMFS), VMware Server, and all versions of VMware Workstation are serviceable by Kroll Ontrack. Data recovery can also be performed on flash media devices, SSDs (solid-state disks), and LTO tapes.

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■ LaCie Remote Burn software, which enables networkable multidisc burning with its remote burn software for Mac OS, is now available from **LaCie**. The software supports LaCie Portable DVD+/-RW with Lightscribe devices, which support FireWire and Toast Titanium software, as well. Remote Burn Software is designed to burn files with a simple drag-and-drop interface while automatically calculating the type of DVD/CD needed.

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■ **NEI** and **Astute Networks** introduced a joint stateless AdvancedTCA server offering that combines Astute Networks' Caspian R1100 Edge Storage Blade and NEI's A 13000 high-availability ATCA platform. NEI and Astute Networks' stateless server solution is particularly well-suited to IPTV, video on demand, and other media-intensive applications at the edge of the network. The offering has also been tested and certified to Network Equipment Building System Level 3 standards.

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■ **NetApp** announced enhanced solutions to create more efficient customer computing environments: FAS3100 and V3100 Storage System Series. The NetApp FAS3100 series offers increased scalability and a single unified architecture. It features thin provisioning, deduplication, Snapshot, RAID-DP, and FlexVol. The V3140 and V3170 utilize the Data ONTAP operating system and act as a powerful differentiator for multiple environments. The Storage Acceleration Appliance includes the SA200, SA300, and SA600 models based on NetApp FlexCache technology; customers can use FlexCache with data ONTAP 7G and GX without restructuring their computing environments. The Performance Acceleration Module optimizes mainstream storage platforms.

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■ **Neverfail** has announced the release of the ClusterProtector, the latest edition of the Neverfail Continuous Availability Suite. Additionally, Neverfail Version 5.4 for Microsoft Windows Server 2008 is undergoing tests with Hyper-V. ClusterProtector provides continuous data replication in real time to a remote disaster recovery site. Available for Microsoft Exchange Server, SQL Server, and Office SharePoint Server, the ClusterProtector intelligently monitors clusters to detect if the cluster can manage a node failure or if failover must transfer to the disaster site.

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■ **Oracle** introduced its Demand Signal Repository, which is a utility designed to let manufacturers mine insightful consumer and supply chain behavior from large volumes of external demand data. The offering lets users search external demand data from stores, retail distribution centers, and other sources. Oracle's Demand Signal Repository employs the analytical capabilities of the Oracle Business Intelligence Enterprise Edition to build a near real-time picture of retail store level sales and inventory management trends. The offering helps users improve demand planning, trade promotion analysis and optimization, sales and operations planning, retail execution, and product life cycle management. The Demand Signal Repository also includes out-of-the-box integration with Demantra, Oracle's demand management solution.

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■ **QNAP** has released its 1U, 4-bay, rack-mountable NAS server called the TS-409U, which the company says is designed as a storage option offering the best price performance ratio for SME and enterprise users. The TS-409U is a Linux-embedded system that includes a 500MHz SoC processor, 512MB of DDR2 memory, and RAID 0/1/5/6/5+ support. Other features include Online RAID Capacity Expansion, Online RAID Level Migration, a hot-swap design, and HDD S.M.A.R.T. and complete log systems. Additionally, the TS-409U supports multiple file-sharing protocols across Linux, Unix, Mac, and Windows platforms; File Server, FTP Server, and Printer Server functions; Windows Active Directory; dual MySQL and SQLite support; and more.

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■ **SGI** unveiled its SGI Adaptive Data Warehouse solution, which is designed to handle the unique demands of data-intensive fields such as battlefield intelligence, energy exploration, weather modeling and forecasting. The SGI Adaptive Data Warehouse supports data warehouses ranging from 4TB to more than 300TB. The offering also lets Oracle data-warehouse customers independently scale I/O, CPUs, and memory as their needs evolve. The Mid-Range Data Warehouse consists of SGI Altix XE250 servers, SGI InfiniteStorage 220 systems, and an InfiniBand node interconnect switch to support up to 20TB of data. The Large Data Warehouse features SGI Altix 450 servers, SGI InfiniteStorage 220 systems, and support for up to 100TB of user data. The Ultra Large Data Warehouse is based on SGI Altix 4700 servers and SGI InfiniteStorage 4600 systems and can handle data repositories greater than 100TB in size.

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More Power Management

Avocent's DSView 3 Power Manager Helps Admins Measure Data Center Energy Use

DSView 3 Power Manager helps managers monitor and track power consumption in the data center.

A LARGE PORTION of the cost of running a data center centers on power consumption. If companies have greater control over power monitoring and management, they can save substantially on costs.

The DSView® 3 Power Manager, a plug-in for Avocent's DSView 3 management software, addresses this need. DSView 3 software provides centralized management of all attached network devices by consolidating all views into a single interface. The plug-in enables users to collect information about the power being used by a unit, rack, or row of racks to more effectively manage power efficiency, reduce problems with outages, and reduce costs. DSView 3 Power Manager provides a calculator to help managers see power-to-dollar costs by converting the amount of energy used from kilowatts to kilowatt hours.

Features of the plug-in include Consumption Reports, Trend Reports, Thresholds, and Alarms. Consumption and Trend Reports track energy use over user-defined time periods and monitor energy consumption over time. Users can set critical level warnings, as well as customizable actions to solve problems with Thresholds, and managers can customize Alarms to alert them when threshold levels are approached.

By integrating with sensor hubs from Uptime Devices, DSView 3 Power Manager provides environmental monitoring and reporting that includes temperature, humidity, and water levels. When paired with Avocent's PDUs, managers can also monitor and control individual outlets and outlet groups.

DSView 3 Power Manager

Power Manager plug-in: $4,995; DSView 3: $2,495

Provides detailed monitoring and reporting about power consumption for data center managers

(256) 430-4000

www.avocent.com

Avocent
The Power of Being There.™

■ **Sun Microsystems** has released SSDs that are designed to work with the Solaris ZFS, the Solaris operating system, and other open-source technologies. This end-to-end, flash-based disk product line was created to reduce energy use, as opposed to traditional Fibre Channel hard drives, and boost application performance. Additionally, flash technology was integrated for the purpose of allowing more system utilization and scalability to reduce server and storage sprawl in data centers that have maxed out in size.

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■ **Symantec** has introduced the Veritas Virtual Infrastructure, which is expected to become available later this year. The Veritas Virtual Infrastructure provides storage capabilities for virtual server environments that manage storage in large-scale, x86 production environments. Veritas Virtual Infrastructure provides direct control of block storage from a guest virtual server, mirroring across heterogeneous arrays; it also provides mature SAN multipathing to ensure data availability. Citrix XenServer virtualization technology from Citrix Systems is included.

Symantec has also updated the Veritas NetBackup platform to include next-generation technologies such as data deduplication, continuous data protection, and granular recovery capabilities for Windows and VMware environments. These upgrades were designed to address boosting the speed and ease of recovery of application data, while also increasing control over disk backup storage growth. Additionally, the platform upgrades will help organizations utilize open architectures to get data center-class global deduplication and block-level continuous data protection. Customers can then leverage commodity server and storage hardware as one grid to scale their data protection storage environment as their business grows.

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■ **Voltage Security** released the Voltage SecureMail Archive Connector for Symantec Enterprise Vault. Through Voltage IBE (Identity-Based Encyption), companies can maintain eDiscovery retention, archiving, and compliance-centric business. The Archive Connector decrypts and indexes the archive with the use of complex key management. Retention and review processes aren't hindered by secure messaging, which keeps costs at a minimum. Organizations can also support end-to-end encryption using Voltage SecureMail Archive Connector while preserving rapid eDiscovery capabilities of Symantec Enterprise Vault.

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■ **Western Digital** introduced its 7,200rpm Caviar Black hard drives; the 3.5-inch, 3Gbps SATA units are available in 750GB ($199) and 1TB ($249) configurations. Each sports a 32MB cache, along with dual processors for increased throughput. WD's StableTrac technology reduces vibration, while its NoTouch ramp system ensures zero contact between the read/write heads and the disks.

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■ Two new disk arrays signal the completion of **Winchester System's** ninth-generation FlashDisk series, the company says. The SX-2392S has one controller and two Fibre Channel ports; the SX-2394R has dual-redundant controllers and four Fibre Channel ports. Each 2U enclosure can store up to 12 drives and can be scaled up to 60 drives through expansion shelves. For high availability and speed, both products support Winchester's ASIC-powered RAID 6.

Manage Unstructured Data

Keep Data Under Wraps With Pentura's Data Risk Assessment Service

AS THE AMOUNT OF DATA generated by organizations continues to grow, the lack of visibility surrounding the content and user access increases the risk to the business. At the heart of the problem is business-critical data that without classification and correct permissions poses a large risk to company security. Pentura's Data Risk Assessment Service allows companies to identify potential risks around data security without the need to invest in expensive dedicated hardware and software tools.

The Data Risk Assessment Service begins by providing visibility of the unstructured data on the network. Once it is determined where the data resides, Pentura will consult with you to classify the data based on three key factors: confidentiality, likely data owners, and current permission levels. Following the identification of the key data assets, Pentura is able to model and report on the usage of such data over an agreed period of time.

On completion of the audit, Pentura will then advise on the correct least privilege access model and policy for the data in question, reducing potentially excessive permissions and providing a measurable reduction of risk for the business.

The Data Risk Assessment Service provides IT administrators with best-practice advice to assist with Active Directory users and groups, so IT staff can also address data leakage prevention on a continual basis.

Organizations can also use information in the Data Risk Assessment report to satisfy internal and external audits without the use of heavy resources or large investments.

Pentura Data Risk Assessment Services

Service that enables organizations to classify and assign permissions to unstructured data

01189 768960

www.pentura.com

Pentura
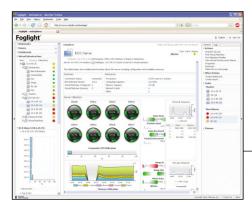
Virtualization Management

Quest Software's Foglight Monitors Impact On Applications, Users

Foglight manages all views of the virtual environment and correlates the virtualization activity with the rest of the application environment.

VIRTUALIZATION management has become a main focus of many businesses and small enterprises. Application virtualization and application streaming need to be monitored and seen from the end user's point of view.

Quest Software Foglight version 5.2 can help monitor the impact of virtualization on databases, applications, and end users while correlating the usage of resources across physical and virtual platforms.

With performance efficiency being a key factor in overall productivity, Foglight ensures administrators can move to and manage a virtual infrastructure with ease.

The management of mission-critical applications within a virtualized environment is extremely important. Most of the time, problems are not recognized or dealt with properly. Foglight helps companies avoid server downtime and the possibility of service disruptions. The newest version of Foglight adds support for VMware.

Foglight monitors the entire virtual infrastructure from the physical servers to the virtual machines and gives organizations multiple resources and options to help with their overall application management. Using Foglight, companies can contain alarm storms, track virtual machines, view the impact of many virtual machines, receive root-cause diagnostics, monitor VMotion events, and customize views for IT operations, data center teams, and management.

Quest Software Foglight version 5.2

Starts at $1,000 per CPU socket

Application management solution with VMware support

(949) 754-8000

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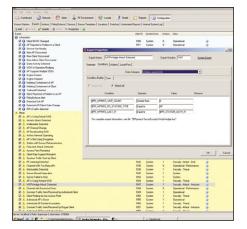
Security On Demand

User-Generated Threat Definitions Added To Aruba Networks' RFprotect

RFprotect provides detailed information about each detected threat.

ARUBA NETWORKS' LATEST version of its RFprotect software, a product line acquired from Network Chemistry last year, brings user-created threat definitions to your WIPS (Wireless Intrusion Prevention System).

RFprotect WIPS software lets users create an attack-detection signature as soon as a vulnerability shows up. In so doing, it prevents breaches from unknown, undisclosed, and unpatched attacks. The software automatically alerts users to network susceptibilities and blocks unauthorized clients, rogue APs, and unknown ad-hocs. RFprotect also enforces organization-specific security policies and delivers compliance reports.

The RFprotect product line includes two packages, RFprotect Mobile and RFprotect Distributed. RFprotect Mobile is a wireless analysis tool that lets users locate suspect devices and conduct security audits, site surveys, and troubleshooting. It features a Site Survey Analyzer, to let users perform onsite RF surveys, and a WLAN Vulnerability Scanner, capable of identifying Wi-Fi device weaknesses.

RFprotect Distributed is a wireless intrusion detection and prevention system with complete threat detection, attack prevention, "no wireless" enforcement, and compliance reporting. It includes the TotalWatch feature, letting users continuously monitor the 2.4 and 5GHz bands, and the PolicyEnforce feature, letting customers prioritize wireless threat policies.

Users needing information about attacks can go to the Wireless Vulnerabilities and Exploits database at www.wve.org.

Aruba Networks RFprotect

Starts around $5,000

Dynamic signature updating software for WIPS helps protect against zero-day attacks
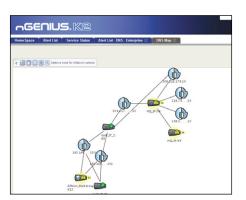
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Application Services View

NetScout's nGenius K2 Provides Visibility To See Status At A Glance

You can determine network status at a glance.

ASSESSING THE HEALTH of applications and services on a network is of utmost importance. However, relying on incomplete information leaves critical gaps in the information flow. NetScout's nGenius K2 uses packet data to acquire network and application monitoring information. The packets contain a rich source of performance data.

nGenius K2 provides network monitoring professionals with a clear picture of network and application health with Service Views, complete with icons for each application service that bear the number and color-coded warnings of various performance levels. Further information can be gleaned from flow and packet details under each application service. The entire interface is designed to help reduce Mean Time to Repair/Restore. The

Virtual Service Network Map uses red, yellow, and green indicators to show where a degradation has occurred. Service Summaries under Service Views offer status snapshots with charts and tables to allow managers to view details on service states over time.

Other key features include Early Warning System and nPN (nGenius Performance Network). Early Warning System leverages NetScout's analytics engine and key performance indicators. nGenius K2 learns normal behavior patterns for key performance metrics and alerts network monitors when significant changes occur. Early warnings can go directly to most network management consoles.

The nPN service displays service views and early warnings of the monitoring application itself and all related devices, including nGenius Performance Manager servers, nGenius Probes, and nGenius InfiniStreams.

NetScout nGenius K2

Starts at $75,000

Provides at-a-glance status and early warning of performance degradations

(888) 999-5946

www.netscout.com

Simplified Mobile Solutions

Wyse Viance Integrates With XenDesktop To Improve Desktop Virtualization

AS GLOBALIZATION becomes more important and more professionals are on the move, desktop virtualization has increased. But delivering end-to-end desktop virtualization has its challenges. To help meet the needs of this new mobile workforce, Wyse has introduced the Wyse Viance family, designed to work with the Citrix XenDesktop product line.

The Wyse Viance family is a sleek, fanless, diskless set of desktop appliances that uses just 13 to 19 watts of power. High-quality video is achieved through locally decoded multimedia, using local processing power. Drivers and USB ports are then virtualized back at the server, allowing IT personnel to have granular control over which USB peripherals are used, while no new drivers are needed on these devices.

Citrix XenDesktop uses a delivery protocol, ICA (Independent Computing Architecture), which gives thin-client devices, such as the Wyse Viance, PC-like responsiveness to any site or client. Additionally, IT personnel can assign users to dedicated and pooled virtual desktops through XenDesktop, controlling the active and inactive virtual desktop connections. This improves the reliability of the connection for the users.

The Viance Pro Mobile, suited for the mobile professional, is one of the clients featured in the Viance family of appliances. The Viance Pro Mobile offers 802.11/b/g/n wireless support, along with a 15.4-inch WXGA TFT LCD screen, full multimedia performance (supports WPF-enabled apps), and Gigabit network connectivity for access to quick LAN connections.

Wyse Viance

Starting at $399

Family of desktop virtualization appliances that has integrated the Citrix XenDesktop to help meet the demands of the mobile professional

(800) 438-9973

www.wyse.com

Protecting The Perimeter

MX Logic's MX Perimeter Defense Weeds Out Email Attacks

SPAM, IN ITS various forms, is a network's worst enemy. Not only does it clog bandwidth and bloat email traffic loads, but spam emails can also contain viruses, worms, and other malware. The best way to deal with spam is to keep as much of it as possible outside the network to begin with, thus limiting the resources needed to dispose of it and the risks involved with letting it land in employee inboxes.

MX Logic's MX Perimeter Defense, part of the comprehensive MX Logic Email Defense Service, addresses this issue. Using a database maintained by the MX Logic Threat Operation Center, MX Perimeter Defense compares all incoming mail with a list of known spammer IP addresses to block more than 60% of unwanted email traffic.

Further filtering of worms and viruses is facilitated by Perimeter Defense's WormTraq virus engine. If any message is found to contain malware or has an IP address that is flagged by the Threat Center, the connection will be dropped so the message never penetrates the network.

Anonymous connections are also a threat to a network, as they can facilitate DHAs (Directory Harvest Attacks), DoS attacks, and malicious email attachments. To solve this problem, a user's Internet-facing mail servers point to MX Logic, which conceals them from such attacks. By waging the war against spam at the perimeter, valuable bandwidth is spared for the network to operate more efficiently and with less strain.

MX Perimeter Defense service requires no long-term service agreements, instead operating on a month-to-month basis for users. Live 24/7 phone and email support comes as part of the service. For additional fees, users can add a number of features to the basic service, including outbound filtering, double or triple antivirus, MX Logic Message Continuity, and MX Logic Fail Safe Service.

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OPINIONS
THE • LAST • BYTE

So Long & Thanks For All The Fish

Well folks, I have been writing this column for about one and a half years since I inherited it from Marc Farley. Actually, it is a different column with a different title, but Marc made the introduction and I, like him, focus on digital storage. I have enjoyed writing these pieces, and I hope that some of you have read them and enjoyed them. Folks are so busy and there are so many sources of information and ideas that it is hard for people to find the time to respond to individual articles or to let editors know they appreciate an article or column.

The title of this particular column is borrowed from "A Hitchhiker's Guide to the Galaxy" by Douglas Adams, and it is the final message that the porpoises send the humans before they leave and the earth is destroyed. Despite what the future may hold, don't forget your towel and don't panic!

Too Much Information?

Are we drowning in a sea of information or floating on a tide of opportunity? This question leads me to the topic of this final The Last Byte column: How can we effectively deal with the constant onslaught of interesting material that bombards us daily? How can we make sure that we don't fall behind professionally and yet have a balanced and full life? These are age-old questions, but today we face challenges finding time to do all that we would like to, partially due to the very devices that are supposed to be helping us save time. There are a few key issues here:

First, how can we not waste time? Although time is finite, our dreams are not. It is important to realize that there are things that can be done faster and those that cannot. Interestingly, the things that cannot be done faster are often fleeting but have the greatest personal significance. One can focus on a technical project, putting great effort and creative skill into understanding all the options and choosing and testing the proper combinations to achieve the objective. This one can do, but you can't speed up the growth of a child, and you can't make the perfect moment last. Do your job well and make sure that your technical tools help you be effective so you have time to gather a series of perfect moments.

Second, what should we pay attention to? What will help fulfill our responsibilities better and give us personal fulfillment? The number of sources of information available to us grows daily, and it is easy to get totally wrapped up in this deluge of content. One must become the master of this content rather than its servant; scheduling your time for accessing and responding to various sources of information can help with this. New semantic tools as they become available could also help us. At the same time, developing a network of diverse friends and associates can help us to fill in the gaps in our knowledge and experience while we fill their gaps. It is ultimately other people to whom we should pay the most attention because that is what data is all about anyway.

Third, how can we find and evaluate new opportunities with so many sources of

TOM COUGHLIN

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information around us? Keep your ears open and your expectations high. If you expect great things to happen and are open to their creation, you will be prepared and recognize what works to further your dreams. Remember, there are many goals, and some are meant for you to explore and some not. It is your adventure to fail and learn and find those opportunities that most resonate with your own capabilities. Find tools and associates that can help you down this path.

For The Future

The demand for digital storage is experiencing enormous growth that won't slow down anytime soon. We must build storage systems and storage management that can support this increased demand. Keep your eyes open to better ways to use your storage resources and organize your content to make this easier, more cost-effective, and hopefully able to expand to support future demand.

If you enjoy my articles, you may want to look at my new series of blogs on thinkerNet (www.internetevolution.com) addressing topics related to storage, as well as my irregular pieces on the Entertainment Storage Alliance Web site (www.entertainmentstorage.org). My recently published book, "Digital Storage in Consumer Electronics" from Newnes Press (a division of Elsevier), could be of interest to some of you. You might also be interested in the Storage Visions and Creative Storage Conferences that I put on (www.storagevisions.com and www.creativestorage.org). I also publish a newsletter and do several extensive reports on digital storage and various applications. Information on my reports and some free papers and presentations are available on the Tech Papers page of my www.tomcoughlin.com site. **P**
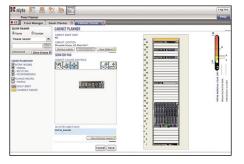
Send your comments to tom@processor.com

Should Your Enterprise Use Thin Provisioning?

Save Money By Adding Storage Only When You Need It

by Bruce Gain

• • •

DISK PRICES ARE PLUMMETING, but the energy costs associated with running storage infrastructures continue to surge. According to the U.S. Department of Energy, electricity prices should reach 9.3 cents per kilowatt hour next year, which will represent a double-digit increase since 2006. Data centers' overall energy consumption, meanwhile, will only rise. According to the Environmental Protection Agency, data centers' power consumption doubled from 2000 to 2006 and is expected to double again from 2006 to 2011.

But while the energy costs required to maintain data storage continue to rise, networks often waste a significant amount of electricity to cool and maintain extra storage disk capacity that is left unused. However, there is a solution.

With the use of thin provisioning, it is possible to come closer to one of the holy grails of storage: allocating storage capacity when it is required on a purely as-needed basis. By sharing virtualized storage across the network, you can reduce the need to over-provision capacity that would otherwise remain redundant.

"If 75% of your LUNs (Logical Unit Numbers) are effectively empty, then an opportunity to rid yourself of that poor utilization translates into a whole lot of benefits," says Geoff Hough, director of product marketing for 3PAR (www.3par.com).

The High Cost Of Maintaining Unused Capacity

Using U.S. Department of Energy pricing data, HP (www.hp.com) and Oracle (www.oracle.com) calculated that it costs $34,514 a year to power a storage system of 100TB. The same storage system costs an estimated $11,432 to cool for one year. With per annum utility costs totaling $45,946, maintaining about 30 to 50% of unused capacity represents up to $22,974 in wasted costs, which thin provisioning can help to remedy.

SOURCE: HP AND ORACLE

Doing The Math

For example, 3PAR claims that its thin provisioning technologies can reduce 2.5TB of traditional capacity allocation to increments of 1TB. If you assume that each terabyte of a disk drive consumes about 1,500 kilowatt hours of electricity for power and cooling and emits 1 metric ton of CO_2 emissions on an annual basis, 3PAR maintains its thin provisioning technologies can

> With the use of thin provisioning, it is possible to come closer to one of the holy grails of storage: allocating storage capacity when it is required on a purely as-needed basis.

reduce a data center's storage "energy and carbon footprint" by approximately 60%. Powering and cooling fewer disk drives also means software-related savings because storage software licenses are dependent on how much capacity is utilized.

Additionally, the technology is usually for mirroring data when creating multiple backups. "People love to make copies of their data, whether within the array or remotely over distance, and if things aren't thin provisioned so that only 25% of your volumes have been written to, then you end up copying a lot of nothing to nothing," Hough says. "The poor utilization gets worse as it compounds when you talk about copies."

Thin Provisioning Need-To-Know

Thin provisioning and the cost and energy savings associated with the technology are clear-cut in theory, yet implementing the system can involve a major revamp of an enterprise's storage infrastructure. Admins' storage management tasks and routines can also change somewhat. For example, thin provisioning allows admins to devote more of their energies to strategic planning to make sure that the capacity will be available as the amount of data to be stored increases, says Chris Saul, storage platform marketing manager for IBM (www.ibm.com). But strategic planning can also become more of an involved process, Saul says.

"With traditional storage utilization often as low as 50%, ensuring that adequate storage is available is usually not difficult. If data center managers use thin provisioning technology to push utilization much higher—which of course is a primary reason for using the technology—storage administrators will need to become more adept at planning and driving acquisition of storage," Saul says. "A close liaison between storage administrators and business application teams will be much more important to ensure that anticipated growth is well-understood. Fortunately, thin provisioning relieves storage administrators of much of the burden of routine storage provisioning, so they will better be able to take this more strategic view."

Thin provisioning also means a greater workload for storage systems as they automatically provision storage on an as-needed basis, Saul says. "When thin provisioning is used, data is typically spread across fewer disk drives than would otherwise be the case," Saul says. "Together, these differences will reduce performance when thin provisioning is used compared to traditional space allocation (the trade-off, obviously, is very much better space utilization)."

Many workloads also do not fully take advantage of the performance potential of modern disks or even of disk drives, Saul says. "So in many cases, these performance differences may not be important," he notes. "But where storage systems provide a choice between thin provisioned and conventional capacity, managers may want to consider whether or not to use thin-provisioned volumes for their most performance-critical workloads, at least until they understand the performance characteristics of the storage system being used."

Not All Solutions Are Created Equal

The value of thin provisioning implementations will also vary from vendor to vendor and from application to application, says James R. Wilson, a product manager for HP (www.hp.com). "The technology is

still young yet, so making broad generalizations is risky," he says.

It is thus a good idea to measure and track expenditures on systems with thin provisioning on a test basis, Wilson says. "Be sure to consider which operating systems and file systems work well with thin provisioning," he notes. "Your results will also vary considerably depending on the operating system and file system."

When looking at offerings from different vendors, a key metric to look at is the assigned capacity increment. "If an increment of assigned capacity is really large, this whole idea of thin provisioning is greatly diminished," Hough says. "But if I allocate raw capacity for these writes in a very granular manner, then things are pretty nice."

Some thin provisioning implementations have allocation units that are measured in megabytes, says Hough. "When very small writes are sprinkled over the dimension of a LUN, then the [capacity] will fill up, and you haven't even put a single file on [the storage unit]," he says.

The ultimate determining factor of which solution to adopt should hinge on testing and benchmarking a short list of thin provisioning solutions you may want to implement. "The best way to determine the benefit for a particular environment will be to try it out, either in a test environment or with the cooperation of a storage vendor. Compare a sample application with thin provisioning and without," Wilson says. "Be sure to test or simulate the expected behavior over time. Don't just look at the first few hours or days." ▣

The Feature Checklist

HP (www.hp.com) and Oracle (www.oracle.com) say using thin provisioning to reduce unneeded storage capacity leads to reductions in TCO. The technology can also offer what the companies say is a "tremendous" return on investment. The benefits include:

• Reduced cooling and power consumption costs
• Increased efficiency by reducing wasted capacity
• Increased productivity by automating complex and manual management tasks

SOURCE: HP AND ORACLE

Rugged, Portable Computer

NextComputing Vigor Evo HD Offers Added Protection, High Performance

WHEN MOST people think of rugged, portable computers, they usually envision the most dangerous jobs or the harshest environments. Many portable computers are fragile and susceptible to the elements, so valued information or even the most basic work functions need to have added protection. NextComputing's Vigor Evo HD addresses some of these issues.

The Vigor Evo HD is a flextop, high-performance mobile machine that utilizes the FleXtreme architecture. It features open standard components, support for COTS software and hardware, multicore processors, high-capacity storage, multiple OSes, and I/O functionality. This system is designed for applications that require a powerful workstation in a portable form.

The Vigor Evo HD is about the size of a briefcase and weighs about 13.5 pounds. The chassis offers a mounting kit that includes rugged hooks that can be used for the shoulder strap. This offers flexibility and ease of use in most environments.

The system's modular processor boards support up to two single, dual, or quad-core processors. The system offers up to three 3.5-inch 1TB drives or 13 200GB hard drives. It also includes internal RAID 0, 1, and 0+1 capabilities.

The Vigor Evo HD has an integrated 17-inch LCD with a disposable protective screen for

glare reduction and added protection. The computer also has up to four PCIe or PCI-X 64-bit slots for single- or double-width cards. The internal chassis is mounted on rubber bumpers so there is no metal-to-metal contact with the outer chassis.

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Web-Based Application Threats

The Next Big Target For Hackers To Attack

by Sandra Kay Miller

• • •

SECURITY MANAGERS can no longer focus only on perimeter and host security. The application has become the prime target for hackers to exploit.

Consider the amount of data that gets plugged into databases through applications and then returned through queries, reports, and content. Every day, more business processes are ported to HTTP and HTTPS and then accessed via Web-based interfaces and consoles.

Traditional network firewalls operating lower on the stack have no way of identifying malicious requests traversing TCP ports 80 and 443 to online shopping sites, Web mail, or business portals such as online banking and account services.

With the maturity of traditional network firewall, IDS/IPS, malware scanners, VPNs,

Ways To Fight Web-Based Application Threats

Web application firewall technology offers a variety of solutions to meet your needs when it comes to protecting your organization.

Hardware: Appliances deployed in the data center for the protection of machines hosting Web-based applications; these often include additional functionality such as load balancing, acceleration, and encryption

Software: More economical and can be installed on existing enterprise assets

Plug-ins: Hook directly into the Web server

Software as a service: Vendors who can provide a complete hands-off experience for an organization's technology needs

SSL encryption, and other network-level security techniques, networks have become inherently more secure. This has led hackers to alter their targets, as well as their strategies. There's no doubt among security professionals that hacking has shifted from sport to a for-profit end game riddled with criminal intent.

To that respect, WAF (Web application firewall) technologies are gaining traction in corporate data centers. WAFs deter attacks on applications that network firewalls, IDS/IPS, and antivirus filters can't by limiting suspect access through combinations of behavioral analysis, signatures, and policy controls, including whitelists and blacklists.

Digging Deep

To attack applications, miscreants are leveraging legitimate tools such as Google and state-of-the-art commercial automated scanning tools. The same tools used by security professionals to protect the enterprise are exactly the same ones hackers are using for attacks.

The biggest challenge of securing Web-based applications is that, from widely installed commercial software on an enterprise-class network to homegrown applications hosted on a single Linux server, they are all vulnerable to a multitude of attacks due to code development shortcomings. As the shelf life of applications continues to shrink, the developers are faced with getting product to market in record time. This often leads to inadequate code reviews for security holes. This has led hackers to exploit legitimate business logic within applications, such as cookie tampering, to gain access to steal information.

Web application security solutions are also aiding developers' application defect assessment, meaning in addition to security, intelligence to developers as to what is wrong with their code is available. The biggest challenge with application security is traffic that poses a threat can appear valid. "We're able to match code review to technology and really ferret out some of the defects we may have, which is part of the natural software development cycle," says Kevin Alwood, system

manager at Intuition Systems (www.intuition systems.com), which has implemented WAF technology to protect online payment processing for government, commercial, and financial institutions.

"To defend applications, you really need to be able to look through a packet regardless of what port it climbed on, ignore whatever it claims it's doing, and actually understand what's really in the packet. Not only does this require that you operate at Layer 7, but you actually have to stand back, look at the packet, and ask yourself, 'What patterns can I identify in this packet or session, and can I link it to a particular application or behavior?'" says Alwood.

Choices

WAF technologies come in a variety of deployments—appliances, software, and plug-ins—all designed to deliver protection at the application layer.

"There is a whole variety of Web-level hacks that can be made against a data center's infrastructure. Some that have gained notoriety include SQL injections, cross-site scripting, and forceful browsing. These attacks target applications," says Stephen Pao, vice president of product management at Barracuda Networks (888/268-4772; www.barracudanetworks.com).

Appliance-based solutions are frequently deployed at the perimeter of a data center or server farm and operate in a variety of postures, including inline, as a reverse proxy, or out-of-band via span port. Some offer additional functionalities, including load balancing, traffic shaping, high availability, SSL acceleration and offloading, connection pooling, cache and compression, and features to aid with regulatory compliance, especially PCI.

"What's interesting is the nature of attacks hasn't evolved much primarily because most Web sites remain unprotected. Well over three-quarters of all Web sites today are running without any prophylactic protection," adds Pao.

For organizations that lack the budgetary resources to implement and maintain hardware-based Web application protection, there are two different types of software-based solutions: those that operate as an independent program and plug-ins for all major Web servers, including Apache, Microsoft IIS, and Microsoft ISA. Both types of solutions offer excellent protection against the wide variety of vulnerabilities and exploits Web-based applications experience.

"In addition to cost savings, software-based solutions are much easier than appliances to deploy and administrate," says Ravid Lazinsky, product manager

Common Attacks On Web-Based Applications

- Buffer overflow
- Cookie poisoning
- SQL injection
- Session hijacking
- Cross-site scripting and request forgeries
- Forms tampering
- Remote code execution
- Malicious code—both zero-day and known
- Denial of service
- Brute force login
- Forceful browsing

at Applicure Technologies (www.applicure.com).

Different Angle

However, not everyone is approaching application security in the traditional sense. George Langan, CEO of eXpresso (www.expressocorp.com) sees SaaS as another approach to protecting Web-based applications. As a provider of online services, eXpresso has in place already all of the security measures typically found within an enterprise.

To that, Langan shares his philosophy when it comes to security: "No matter what blocks or protection you put in place, someone is going to figure out a way to break them." While organizations should secure their applications as much as possible, he believes that it is critical to have the ability to build an extremely detailed audit trail. "You want to be alerted as soon as anything out of the ordinary happens," he notes.

In talking to customers, Langan still finds that they are wary about having their information hosted on a server other than their own, regardless of the level of security of redundancy.

Web application protection represents next-generation digital security. Working in conjunction with traditional network firewalls, IDS/IPS, and malware scanners as these technologies mature, they will hopefully reduce the threats faced by an increasingly Internet-driven enterprise. **P**

> **The application has become the prime target for hackers to exploit.**
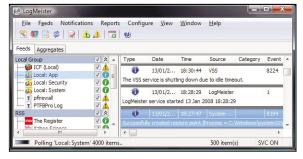
Centrally Monitor Log Data

Technology Lighthouse LogMeister 3.0 Can Warn, Take Action

AS TECHNOLOGY GETS more complex, it's refreshing when network administrators can use a product that simplifies their tasks. Technology Lighthouse LogMeister 3.0 offers a comprehensive way to centrally monitor and analyze logs.

LogMeister will monitor your network logs in real time or according to a specified schedule.

The main LogMeister interface is designed to be user-friendly, with information presented in an easy-to-read format.

Logs include Windows event logs, text logs, RSS feeds, and XML. Users will be warned when significant events occur in the network, and LogMeister will control the central archiving of log data. LogMeister helps meet audit requirements, while also helping users with data analysis, early detection of security breakdowns, and hardware malfunctions. Other features include application and system debugging, error management throughout networks, monitoring of Web server log files, and the scrutinizing of RSS feeds.

As LogMeister analyzes data, it filters the data is read from the source, sorting out noise events. LogMeister looks for certain criteria in the data it inspects and then reacts by taking action such as producing

an on-screen alert, sending an email, running a script, or creating a separate log.

LogMeister 3.0 adds features such as custom reports and outputting and bulk event feed created by an external file.

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Log Monitoring and Notification

Major Drivers Behind Data Center Automation

Automating System & Application Administration Is Not For Everyone

by Kurt Marko

• • •

DATA CENTER automation software, a relatively new class of comprehensive management tools, promises to bring unwieldy server, storage, and network platforms under control. Forrester analyst Evelyn Hubbert defines the burgeoning world of data center automation as "a combination of methods that enable hardware, software, and processes to work together to streamline IT operations. It automates highly manual processes, which assists both the IT operations and IT service management teams in delivering services from design to operations and maintenance." A key element is the ability to "automate a variety of workflows that support configuration and change management processes across IT infrastructure," she notes.

Data Center Automation Drivers

Data center automation software is receiving increasing attention from IT managers due to a variety of business and technology trends that have converged to make the job of infrastructure operations and management ever more challenging. Chief among these is the sheer complexity of today's business applications and services, says Kalyan Ramanathan, director of product marketing at HP's Business Technology Optimization Software unit (www.hp.com). Using N-Tier architectures, virtual machines, and a potpourri of application components, IT applications and services have become so convoluted that he says administering them manually is almost impossible.

Compounding the situation, Ramanathan notes that in many companies, the last few years have seen an explosion in the number of servers, both physical and virtual, with administrators now having to cope with thousands of servers, distributed over several data centers, running dozens of applications. Manual processes can't scale to handle the increased workload; thus, he feels that without some automation solution, it's impossible for IT management to get full visibility of the status and health of their various systems and applications.

Coping with data centers of such scale and complexity is motivation enough for many to consider automation tools, but manually running such complex environments also promotes inadvertent mistakes. A study by Andi Mann, research director at EMA (Enterprise Management Associates; www.emausa.com), found that more than half of enterprises surveyed believe that human error or manual intervention is responsible for some, and in some cases most, of their data center operational lapses. "A significant part of the human error rate appears to be due to a lack of adequate skills and processes," says Mann.

For large IT departments, the biggest draw of data center automation software is enhanced staff efficiency. With the number of enterprise applications and systems growing at a breakneck pace, increasing admin staff at a comparable rate just isn't feasible.

The ratio of the number of servers managed by each system administrator is a common efficiency metric, and HP's Ramanathan says his company sees customers improve as much as an order of magnitude—going from 25 to 50 servers per admin to 200 or more after employing automation tools.

Reasons For Resistance

While promising impressive benefits, data center automation isn't for everyone, as these tools are complex and expensive to deploy, according to Info-Tech analyst Vince Londini. He says that developing good automation processes is time-consuming because administrators either have to capture in excruciating detail the tasks they're already doing, or they must change processes to conform to a predefined standard best practice. Furthermore, integrating automation products into an IT department's existing management system isn't trivial. Londini notes that companies usually end up calling on a consultant or systems integrator to perform the deployment.

A company also must have a critical mass of servers before automation makes sense. HP's Ramanathan says that if a firm only has 15 or 20 servers, and perhaps as many as 100, manual admin processes can suffice. Londini finds that unless a company can expect to save at least two full-time positions through efficiency gains, an automation solution isn't cost-effective. In light of these prerequisites, it's no surprise that data center automation products are almost exclusively targeted at Fortune 500-type companies.

Londini says that the biggest reasons IT departments don't deploy data center automation is the perception that the payback of enhanced efficiency isn't worth the expense and complexity of deploying the tool. He says that vendors try two tactics to dispel the notion that implementing their product is going to be a lot of work: either convince buyers "that there's this pot of gold at the end of the rainbow"—that is, large cost savings—or reassure customers that "it's not as bad as it looks"—that is, the implementation won't be as messy and time-consuming as they fear.

Another factor hindering adoption of data center automation software is organizational rather than technological. Mike Puterbaugh, vice president of marketing at Stratavia (www.stratavia.com), notes that the operating groups of most IT departments, whether servers, networks, or applications, are often segmented into different organizational silos, with no focal point for end-to-end service management and monitoring. This makes it difficult to gain consensus on an automation solution that spans technology segments and threatens to fundamentally change the way each group works.

The learning curve of data center automation software, and the time and cost of training staff to effectively use a solution, also causes many potential buyers to balk. While vendors try to mitigate these issues with well-designed management interfaces or prepackaged automation scripts, automation tools are still complex products that take time to learn and use effectively.

While automation promises improvements in efficiency and management agility, the products still come with enough overhead that they are primarily suited for large, complex, and distributed organizations. ▪

Key Considerations
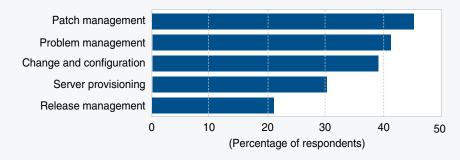
- **Midsized to large data centers will benefit the most from automation suites.** Prices for management suites can range up to $100,000 or more, making such solutions unattainable for smaller enterprises. Some vendors have begun to offer midtier automation products that are suited for SMEs; however, these SME products are stripped-down versions of high-level product offerings. Whatever the size of solution chosen, avoid products that require a homogeneous hardware environment or those that don't offer the flexibility of customization.

- **Product overlap is a real danger.** Purchasing management suites can sometimes lead to purchases of overlapping products. For example, while a particular solution may be prolific at automated server management, its compliance module may lack full auditing features. This may cause the customer to buy an additional module strictly for auditing purposes, further driving up costs.

- **Automation serves as a basis for ITIL alignment.** ITIL (IT Infrastructure Library) applies a methodology for IT service management, of which process modeling, execution, and extension are important parts. Automation aligns well with the goals and objectives of ITIL, so if the enterprise is currently undergoing a transition to ITIL, use it as a framework for IT service automation instead of one provided by a vendor.

- **Integration issues persist.** Too many acquisitions and not enough effort focused on out-of-the-box integration have given rise to complex vendor software stacks. Despite the strides made in feature sets by vendors, their solutions require a substantial amount of integration in order to make them work with all the different applications and products the average data center uses.

SOURCE: "WHY ENTERPRISES MUST ADOPT DATA CENTER AUTOMATION"; VINCE LONDINI, INFO-TECH RESEARCH; NOVEMBER 2006

Primary Automation Tasks

From a task automation perspective, what technologies do you plan to have automated in two years?

Technology	Percentage of respondents
Patch management	~45
Problem management	~41
Change and configuration	~39
Server provisioning	~30
Release management	~21

(Percentage of respondents)

A recent survey by IDC of IT managers on the specific processes they plan to automate in the next two years found that IT organizations are automating some of the core operational processes necessary for meeting service-level agreements in areas such as change, configuration, and patch management.

SOURCE: "THE EMERGING IT SHIFT TOWARD BUSINESS SERVICE AUTOMATION"; STEPHEN ELLIOT, IDC; NOVEMBER 2007

SIX QUICK TIPS

Pinpointing Network Problems

Identify & Resolve Common Network Issues

by Sixto Ortiz Jr.

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NETWORK PROBLEMS CAN BE SOME of the most vexing issues for administrators to tackle. A change in a device or even a device or software program setting can lead to entirely unexpected consequences that can be difficult to troubleshoot and resolve.

So, discovering ways to quickly and efficiently pinpoint network problems is high on the wish list for most administrators. Troubleshooting is critical, especially when problems unexpectedly occur, but most administrators prefer to spend their time on strategic issues important to their businesses. These next few tips should pay dividends whenever unexpected issues occur. After all, the only sure thing in network administration is to always expect the unexpected.

Ensure Network Visibility

Before administrators can effectively troubleshoot network issues, they must have a clear idea of what their network looks like in the first place. The IP addresses assigned to all devices transmitting and receiving data throughout a network are key windows into the structure of the network and can help administrators quickly pinpoint the source of an issue.

BONUS TIPS

■ **Keep It Simple.** Rui Portugal, support manager for Critical Links (www.critical-links .com), recommends verifying that all cables are connected to the right ports on switches and routers. In fact, Portugal recommends developing a simple troubleshooting checklist that includes checking for minor issues, such as power and connections.

■ **Find A Happy (Capacity) Medium.** Ken Klapproth, vice president of marketing at Entuity (www.entuity.com), warns that running with little or no capacity can be "downright dangerous" and lead to sizable unplanned expenses. He recommends that administrators use a capacity planning tool for mapping existing network inventory and enabling the efficient allocation of network resources.

Branko Miskov, director of product management for BlueCat Networks (www.blue catnetworks.com), says knowing who has the IP address—whether static or dynamically assigned—is imperative to successfully troubleshoot a network problem. Miskov recommends that businesses deploy an IP Address Management tool that enables organizations to track IP dynamic and static usage to obtain the visibility that's needed to zero in on networking issues.

"Whether the IP is statically or dynamically assigned," says Miskov, "organizations need visibility into the entire IP infrastructure to know what's going on."

Packet Insights

The packet is the most elementary unit of data that traverses a network. So, analyzing network packets can provide network administrators with valuable information that can be used to troubleshoot issues or, better yet, proactively identify suboptimal conditions before they lead to problems.

Tony Barbagallo, vice president of marketing at WildPackets (www.wildpackets.com), says even though administrators can see global network statistics without capturing packets, the fact remains that the capture and view of data packets can help diagnose and pinpoint problems more quickly. Barbagallo recommends that administrators capture traffic for hours or even days so plenty of data is available to identify and fix problems.

To further pinpoint a network problem, says Barbagallo, administrators should filter captured packets by, for example, protocol or source IP address. More advanced network administrators, he adds, can perform more advanced filtering on specific protocol decode fields. As an example, Barbagallo points to the TTL (time to live) as a metric that can reveal to administrators where a packet came from and where it is going. If a packet has a TTL under 128, he adds, that packet has most likely traveled through a router.

The Three P's: Policies, Processes & Procedures

Dr. Elan Amir, president and CEO of deep-packet inspection vendor Bivio Networks (www.bivio.net), says "purposely investing time and energy upfront in the development of end user network access policies and processes will save data center

and network administrators significant time, energy, and money on the back end."

In this environment, says Amir, administrators must cope with a constantly changing "user" database: Users come and go into and out of the network, and numerous requests for access to new resources and assets, as well as requests for the movement of resources, occur every day. So, a thorough and disciplined process for naming and maintaining this user database, identifying network access resources made available to users, and clearly defining networking policies associated with any and all users is critical, he adds.

Policies need to include who can access what resources and/or applications and for what specific purpose and period of time, emphasizes Amir. Policies in place to ensure compliance with regulations must be clearly defined and implemented.

In order to effectively implement policies, processes, and procedures, administrators should "deploy platforms that enable the unification of multiple applications and associated policies on a singular device," says Amir.

"Furthermore," he adds, "having platforms which enable the inspection of end user packet information at the lowest level, allowing the implementation of the most robust network policies, ensures maximum protection of corporate resources from external security threats, as well as internal data leakage while optimizing overall network utilization."

Work In Tandem

Virtualization is one of the most influential technologies in existence today, impacting operations in both data center and network administration. But, says Ken Klapproth, vice president of marketing at network management software vendor Entuity (www.entuity.com), "when it comes to managing your network, virtualization doesn't always reign supreme."

Even though virtualization generates many benefits—including cost reductions, increased agility and responsiveness, reduced downtime, and even faster software development cycles—it also creates new challenges whenever its operation is considered independent of the physical network, says Klapproth. The reason is, he adds, even though virtualization is deployed in "virtual machines," they execute real (mission-critical) business services on physical servers that users access across physical networks.

At the end of the day, understanding the interactions between physical and virtual environments is critical to effectively running a trouble-free network.

"You need to effectively operate a combined virtual and physical environment to address all of your business' needs," says Klapproth. ▣

WHAT'S HAPPENING

Get More For Your Money

Evertek Bridges The Budget & Demand Gap

by Chris A. MacKinnon

• • •

AT THE END OF THE DAY, any IT manager in a small to midsized enterprise knows what it's like to be torn between a budget and real data center IT demands. There are days where you wonder if it's possible to squeeze any more value out of a particular piece of hardware or software. It's not uncommon to see an IT or data center manager juggling costs, ROI issues, and bottom lines all at the same time. As any professional juggler will tell you, the key is staying relaxed and being consistent, so everything doesn't fall at the same time.

Enter Evertek

The good news is there are companies out there that can help you maintain this IT-business balance. Michael Buonomo, an Internet strategist with Geeks.com and spokesperson for Evertek (www.evertek.com), says Evertek was established in Oceanside, Calif., in 1990 to help companies do just that. Since its inception, Buonomo says Evertek has exploited the market demand for low-cost manufacturers' excess inventories, end-of-life products, and factory-reconditioned computer systems and peripherals. During 18 years of continuous operation, Evertek has developed and sustained a competitive advantage in the worldwide sourcing and distribution of this type of inventory.

"Every IT manager is stretched thin between decreasing budgets and increasing expectations," says Buonomo. "Evertek can help IT managers stretch their budgets with low-cost/high-value IT products, thus decreasing the IT department's costs, increasing ROI on their efforts, and improving the bottom line of the organization at the same time. A win-win for our customer, the customer's company, and Evertek. We specialize in end-of-life and closeout products, so our inventory in itself is not unique, but our product mix and place in the market is in slightly dated products, which allows us to sell competitive- and extreme-value goods and exceptional prices."

Evertek's expertise in sourcing and purchasing closeouts, off lease, and refurbishing and repackaging products on a large scale allows the company to provide competitive pricing on a wide variety of high-demand products, while its multiple, varied sales channels—wholesale and retail, domestic, and international—allow Evertek to maximize profitability.

Business Strategy

Evertek also answers the computer reseller's need for deals on wholesale computer parts and wholesale electronics. Buonomo comments, "When supply exceeds demand and a company needs to unload their excess inventory, Evertek will create a solution that will benefit both parties. Evertek looks to expand and strengthen relationships with suppliers through increasing communication, developing incremental revenue-generating opportunities, and refining supply-chain efficiencies."

Peter Green, director of marketing at Evertek, adds, "Because we focus on closeouts and excess inventory, we have better prices on slightly outdated technology. Our customers are seeking maximum value and performance for their money and understand the technology that they are buying. They understand performance and understand their needs."

B2B

Buonomo says it's Evertek's purchasing reach and expertise, as well as the company's multiple sales channels, that allow it to buy and profitably sell lots of units of any size and any condition, from ten to tens of thousands of units. "In addition," he says, "the capabilities of our refurbishing and production departments allow us to further expand the reach of our sourcing. Our purchasers average over a decade of industry experience in purchasing PC and consumer electronics goods. As a result, they have established strategic relationships with a global network of manufacturers, distributors, brokers, IT managers, and liquidators."

Buonomo says Evertek's standard practice is to pay cash for closeout and excess inventories, thereby securing the lowest possible price and providing immediate cash flow to its suppliers.

He says Evertek provides a wholesale eCommerce experience to its customers. He explains, "Evertek was one of the first computer wholesalers to develop an online presence. Conceptualized in 1996, our ESS (Electronic Self Serve) ordering system was designed to offer real-time inventory and 24/7 sales and customer support. The efficiencies afforded by automating this sales channel permit us to pass significant savings on to our customers. Approximately 80% of our wholesale orders are processed without manual intervention."

According to Buonomo, Evertek was conceived to exploit the opportunity of "cash-starved PC peripheral manufacturers and distributors with distressed inventories." He says Evertek pays cash for large lots of excess merchandise and passes the savings on to a global network of resellers, dealers, and retailers. Evertek has expanded into importing and international sales and has developed into one of the highest-rated computer distributors in the nation.

"We have a global sales reach, shipping to over 120 countries, selling to everyone from the guy building computers in his garage to large merchants and eCommerce giants such as Fry's, TigerDirect, and Staples," he says. "We've spent 18 years cultivating and growing our worldwide following of volume customers interested in buying excess, closeout, and refurbished merchandise. This customer base can absorb a continuous supply of millions of dollars' worth of goods every month. It is a channel that we are constantly nurturing."

Evertek's B2B operations are divided into three primary categories: eCommerce, domestic direct sales (divided into Western United States and Eastern United States), and international direct sales. Evertek's domestic sales efforts target medium-sized and large resellers, VARs, and distributors. Buonomo says despite the fact that many resellers go out of business each year, with the assistance of its onsite telemarketing group, Evertek is able to recruit and maintain a constant core of loyal customers throughout the U.S. "Virtually all of our core salespeople have remained with the company since their date of hire, and many have advanced into upper management," Buonomo notes.

"As we enter our 18th year in operation," he says, "we will look to continue the great success we've seen in years past and build upon our core strengths. As the economy slows down and resources become more of a commodity, data center managers will be looking to mitigate cost and look at cost-saving measures more and more. Evertek will look to fill [those] needs and continue to service near and far for many years to come." ▣

THREE QUESTIONS

Turnkey Communication Appliance Solutions

American Portwell: The Network Security Experts Behind The Scenes

by Brian Koerner

PORTWELL WAS FOUNDED IN 1993 in Taiwan with a main focus on industrial PCs, such as those used in semiconductor manufacturer facilities and embedded applications such as ATM kiosks. In 1999, American Portwell (www.portwell.com) partnered with a local distributor for the United States and in 2000 started with a local branch office in Fremont, Calif.

American Portwell, which started with 10 employees, now has more than 65 and has seen its revenue growing at a rate of approximately 30 to 40% annually. The main focus of the U.S. office is to provide presales support and post-sales service to American Portwell clients.

Portwell provides the hardware for feature-rich, energy-efficient network security appliances and unified threat management appliances. The end user might not know that the network security appliance that he is purchasing is actually coming from Portwell. Portwell does not offer its devices to the commercial marketplace but rather to independent software vendors or system integrators who integrate their own software, repackage it,

put their label on it, and sell it in the commercial marketplace. Though Portwell doesn't release the names of its customers, some well-known vendors in the network security appliance space sell its products.

Mark Huang, the communications appliance manager for American Portwell, tells a little more about his company and the products and services it offers.

■ What are the biggest IT-related issues facing today's small to midsized enterprise?

Huang: Almost every organization requires some degree of network security protection against worms, viruses, and spam. Without such protection, spam, for example, can account for over 50% of an organization's incoming email. To muddle through all of that takes time and slams an organization with significant loss of productivity.

Viruses can take down the network and affect the availability of important resources for an organization. Organizations can no longer ignore this. They must have some type of protection against these threats.

■ What should *Processor* readers know about your company's products?

Huang: For the clients that we serve, they want to focus on their core competency—building software for network security solutions—not manufacturing hardware. Organizations rely on us for the hardware. We engineer, manufacture, test, and certify the hardware. For example, Portwell has taken the NAR-5520 through time-consuming CE, UL, and FCC testing.

We offer our customers a turnkey, certified hardware platform with [the] multicore processing capabilities of Intel's Core 2 Duo processors with the power and backward-compatibility of the Intel 945G chipset. Our platform uses less energy, has a five-year-plus life cycle (increased from the typical two- to three-year life cycle of a standard network security appliance), and offers features like the Ethernet bypass function that allows for load balancing and failover capabilities.

■ What makes your company unique?

Huang: American Portwell is unique in that we have a very comprehensive understanding of the network security marketplace. Not only are our products great, but we have aligned ourselves in the U.S. with presales support and post-sales service that meet the demands of our customers.

Though our manufacturing is done in Taiwan, our small assembly line here to make last-minute changes is something that is very important to our customers. Since the software development process is very dynamic, having the ability to make these last-minute changes for clients sets us apart from our competition.

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IT'S NOT UNCOMMON to see several tangled up cords weaved around an employee's desk. These wires can be various shapes and sizes, or they can all look exactly alike. Sorting through webs of cables in order to discover bad or unidentified cables can be a tedious, frustrating job. To help make the job of testing Ethernet patch cables quicker and easier, Smartronix has introduced the Patch Test. This is a battery-powered tool that tests the continuity and common wiring standards such as Gigabit Ethernet, Fast Ethernet, and fast Ethernet Crossover.

The PatchTest is also fully compatible with the Smartronix line of SuperLoopers, which are a blend of an Ethernet jack and plug. SuperLoopers are used for loopback testing and to change standard Ethernet cable to a crossover cable. SuperLoopers and the PatchTest tools are to be used when remote testing longer cables whose ends are not colocated.

The Smartronix PatchTest will signify a Giabit Ethernet Straight Through, 10/100Mb Fast Ethernet Straight Through, 10/100Mb Fast Ethernet Crossover, and a bad or unidentified cable via LED lights. Made from RJ-45 cable connectors and molded ABS plastic housing, the PatchTest comes with a keychain attachment to make it a convenient tool for network technicians and IT personnel to carry around at all times. Its dimensions are 2.5 x 1.5 x 0.75 inches, and it weighs just 1.16 ounces.

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Solving Virtualization's Pitfalls

Keeping Performance and Reliability on Your Virtual Machines

Virtualization has enormous potential to save companies money, time and space. However, like any innovation, there are bound to be a few snags and snares that prevent you from maintaining optimum performance and reliability. While virtualization promises efficiencies, it hardly guarantees performance. The anticipated evolution to large scale virtualization can only be made effective by understanding and seamlessly integrating this technology into the network. Success also hinges on the resolution of any reliability-threatening problems, like fragmentation, that will spring up.

Fragmentation 101

Fragmentation is a performance-crippling phenomenon. And, if left unchecked, it can lead to hangs, bottlenecks, freezes, crashes and total system failures.

Disk fragmentation occurs when individual files are not stored in contiguous segments. To fit space restrictions, files are broken up and scattered around the hard disk. So the file system, whether in a virtual machine or not, has to generate more I/Os to address the excessive file fragments.

Pinpointing the Problem

Without a doubt, the more I/Os generated (and multiple virtual machines only exacerbate this), the more through-put you'll need to account for in storage subsystems. Even with expansive, fully optimized SAN or RAID implementations underlying those virtual machines, poor disk performance is still regularly traced back to fragmentation.

Virtualization pundits have been cautioning for some time about the major performance hit a host operating system takes from fragmentation. Fragmentation's side effects include I/O bottlenecks and the inefficient use of resources. These are two major pitfalls along the path towards virtualization. They limit the performance and reliability of virtual machines. And server virtualization actually compounds fragmentation. A fragmented virtual disk, in the same storage system as another fragmented virtual disk all on top of a fragmented logical disk, significantly increases the amount and severity of fragmentation's symptoms for the entire architecture.

A misguided and somewhat instinctual response to fragmentation is to add more and more hardware (more hard drives, faster controllers) to fight off its effects. But this only mitigates the problem, and never solves it.

Solving Fragmentation

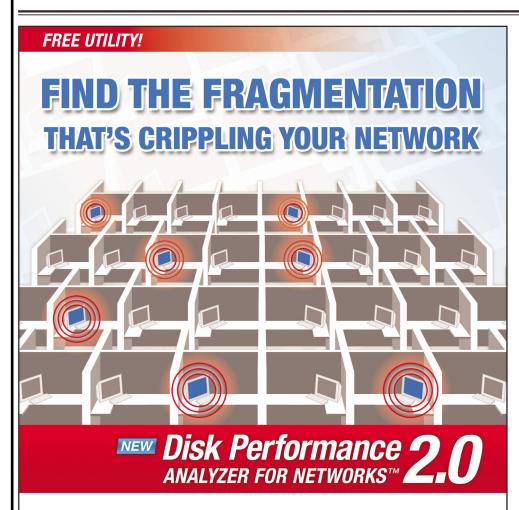Diskeeper® 2008 with InvisiTasking™ technology automatically solves fragmentation in real time with absolutely zero overhead. Management and downtime are things of the past. The breakthrough of InvisiTasking allows for defragmentation to be a completely transparent background process. Only untapped resources are used, so applications are never interrupted. Having Diskeeper running on your virtual machines eliminates I/O bottlenecks and ensures resources are used more efficiently.

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